

MARCH, 1959

# AMATEUR RADIO

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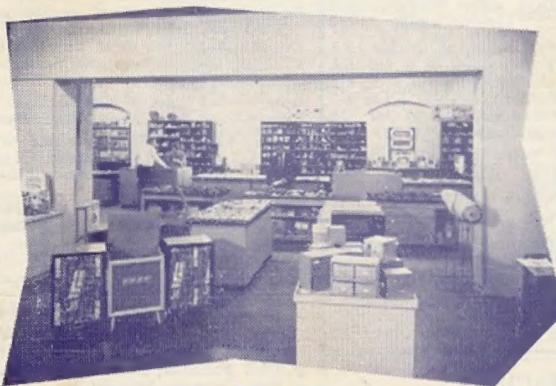
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96 Collins St., Melbourne, C.1.  
Telephone: MF 4505.

**PRINTERS:**  
"RICHMOND CHRONICLE,"  
Shakespeare St., Richmond, E.1.  
Telephone: JB 2419.

**MSS. and Magazine Correspondence**  
should be forwarded to the Editor,  
P.O. BOX 36,  
EAST MELBOURNE, C.2, VIC.,  
on or before the 8th of each month.

Subscription rate in Australia is  
18/- per annum, in advance (post  
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JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

Published by the Wireless Institute of Australia, Victorian Division,  
478 Victoria Parade, East Melbourne, C.2.

Postal Address: P.O. Box 36, East Melbourne, C.2, Vic.

## EDITORIAL



## SILVER ANNIVERSARY CONVENTION

Once again it is Federal Convention time, and the 25th Federal Convention will be held over the Easter week-end from March 27 to 30. The coming weeks will see the culmination of two years of effort since the last Convention in preparation for the Extraordinary Meeting of the Radio Conference of the International Telecommunication Union.

It is more than 25 years since the first Federal Convention was held and it is certain that our early delegates and the Federal Headquarters of that time would agree that the coming meeting was the most important of those held during the long history of the Institute. The issues that are at stake are big and the future of the Institute and Amateur Radio in general may well depend on the deliberations at the Convention.

Although there will no doubt be matters of a general and domestic nature to be discussed also, the main work of the Twenty-fifth Federal Convention will be to prepare the brief for our delegate and to detail the policy to be adopted on various matters which are likely to be argued by delegates from all countries participating in the discussions at Geneva. Liaison has already been taking place between the Institute and the other major radio societies of the world so that a common pol-

icy for the Amateur Service may be achieved.

It is this liaison and that which will take place at Geneva itself between Amateur delegates that made it imperative to have our own delegate in attendance, and the reason for the Federal Executive's campaign for funds to finance the venture. Our finances are now such that we are confident of our delegate going to the Conference, but we must still reach our target to help to make his stay in Geneva comparable with other representatives who will be present for the complete duration of the Conference.

It is to be hoped that all Divisions knowing the importance of the coming Convention will brief their delegates accordingly and give them such powers as necessary to make decisions "on the spot", and to present in the main only those matters that are significantly policy and regulatory ones.

Our official delegate to the I.T.U. Conference will be present at the Convention, and it is our duty at this "Silver Anniversary" of Federal Conventions, by the unanimity of discussions and singleness of policy, to give him our brief for Australian Amateurs in general and our confidence in particular. Help us to help you make this a momentous occasion for the Wireless Institute of Australia.

FEDERAL EXECUTIVE.

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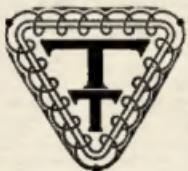
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# A.C. Power Supply for the No. 22 Set

C. S. RANN,\* VK3AAK

AS No. 22 and No. 122 sets are being released from disposal sources and are appearing on the Amateur bands in increasing numbers, it was thought that a description of an a.c. power supply for these units may be of interest.

The units are designed for use with a 12v. accumulator, and the construction of an a.c. power supply to run the unit is complicated by the two following difficulties: (1) There are battery tubes in the unit which require a low d.c. filament supply; (2) The battery power supply that goes with the unit contains vital parts of the circuit, such as switching relays, therefore it is difficult to do without this unit.

On considering these two difficulties, it was decided to construct a 12v. d.c. power supply, to replace the 12v. accumulator, rather than to try and replace the d.c. power supply of the unit with a normal mains power supply. Another attraction of constructing the 12v. power supply was that it could be used as a battery charger—an item that has long been required at this QTH.

Once having decided in principle that a smoothed-out battery charger was the most convenient means of powering the rig, a little reflection on the currents involved showed that it was not going to be easy to obtain adequate voltage regulation between transmit and receive. The most likely solution is probably to float an old accumulator between the battery charger and the unit, however I did not want an accumulator in the house so I set about trying to design a power supply that would stay at 12v. when the load varied from approx. 2-8 amps, i.e. 300%. This is such a large variation that the task appeared impossible. Indeed it did prove so using several conventional methods of improving regulation.

In these tests a bridge rectifier (STC BI12-1-1C) was used to give full wave rectification and a heavy choke from an old-time movie projector (d.c. source for the sound lamp) with two 5,000  $\mu$ F smoothing condensers was available to smooth out the supply. The main item of the unit was a variable gap battery charger transformer supplying voltage from 3-40 volts at up to 10 amps, and was very attractive from the battery charger angle. Unfortunately, it is believed that these are no longer available. However, multi-taps on a high current transformer could be substituted providing a reasonably close control of voltage can be obtained.

With this basic equipment, a normally smoothed circuit was tried and the regulation was so bad that there was a voltage drop of over 5 volts between receive and transmit. Re-arranging components and introducing more inductance or capacitance all gave much the same result, with no apparent hope of a satisfactory solution by this means.

Next a battery regulator from an I.F.F. unit was tried. In this unit the load is taken through a carbon pile, the resistance of which can be changed by

## MODIFICATIONS TO THE NO. 22 OR 122 SETS

As this magazine is desirous of publishing details of any alterations to improve these sets, members can assist other Amateurs by forwarding details of their work on the modifications to these sets.—Editor.

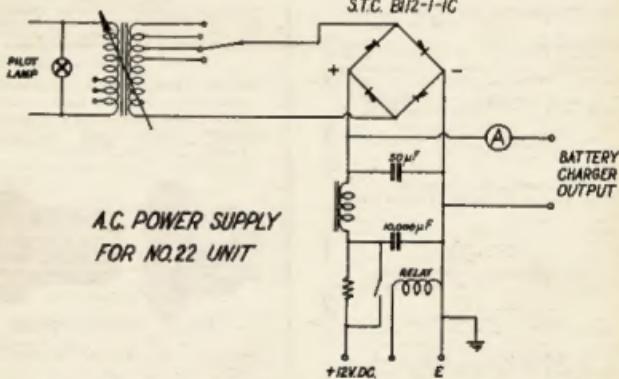
a solenoid compressing the tablets of the pile. The current through the solenoid can then be adjusted in direction and magnitude to give the desired regulation.

Connections in series, parallel and combinations of both were tried with the solenoid coil, carbon pile and power supply. A variable resistor was connected in series with the solenoid to vary the current in these tests. Of all the tests tried no combination gave a satisfactory result although better regulation was obtained than without the pile. If a pile designed for 12v. use

activating the shorting relay. I finally decided to use relay RL2 contacts 1 and 2 in the power supply. Contacts 1 and 2 switch the 12v. input from the battery into the second vibrator unit when the unit goes over to transmit. By taking a lead out from contact 1 on RL2, 12 volts is supplied to the shorting relay whenever the unit goes to transmit. This voltage is brought out through the power plug which is a four-pin connector. In the original wiring two pins are wired in parallel, one of these pins was disconnected for carrying the voltage back to the shorting relay. Using this system does not upset the No. 22 wiring, and the unit can still be used in the conventional way with an accumulator.

The series resistor used was obtained from the junk box. It has two ohms resistance and can take up to 20 amps. It was made variable with a slider and adjusted to give perfect regulation in practice. The shorting relay was an ordinary 12v. disposals relay also from the junk box.

For battery charging use, a separate output with a meter is taken from the



could have been obtained the result may have been different.

After further thought on the problem it became apparent that continuous voltage regulation was not really required, but regulation at two specific loads was actually the requirement. Once this was fully appreciated the solution became apparent. A resistor could be put in series with the load; this resistor could then be shorted out with a relay on transmit. This idea was successful on the first try. The only difficulty was to short out the resistor automatically when the unit went over to transmit.

As the No. 22 has a large number of relays built in, and as they are all very busy flipping one way or the other on transmit, I decided to look around for one that could provide 12v. d.c. for

output of the rectifier before the main smoothing unit. An external switch (T.U. unit switch) is also provided to select different taps of the battery charging transformer, also the variable gap control of the transformer has been brought out to the front panel. As a battery charger the unit is very versatile and can charge at up to at least 10 amps.

The unit described above has been working perfectly on the air for many months. It has also been working as a battery charger over the same period, and on no occasion has it given any trouble. There may be other ways of putting the No. 22 on the air with an a.c. supply, and if so, I hope they will be described. However, this method certainly works well and can be recommended for reliability.

## PREDICTION CHART, MAR. '59

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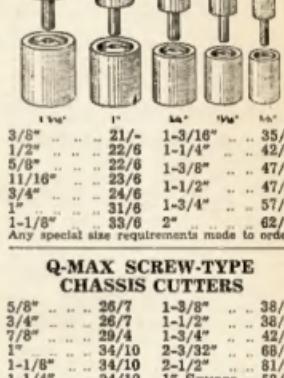
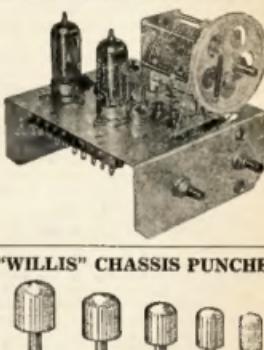
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# A Noise Limiter for Mobile Work

LES JENKINS,\* VK3ZCN

VERY few mobile operators have not suffered at some time the problems of Ignition QRM. This would be by far the greatest problem which faces the designer of mobile receiving equipment, whether for v.h.f. or the lower bands.

Most of the better known systems of noise limiting give, at best, a poor performance and usually introduce more than a tolerable amount of distortion.

When a new mobile rig was built recently for use on the two metre band, it was decided to try and overcome this problem once and for all. The results were so much an improvement that it was decided to put pen to paper and share this one with all interested parties.

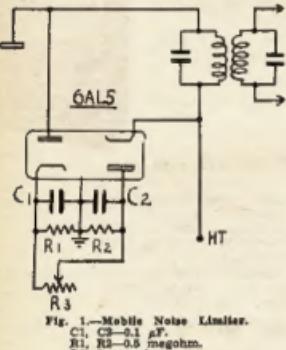


Fig. 1—Mobile Noise Limiter.  
R1, R2—5.0 megohm.  
R3—1 megohm.

The circuit is very simple and, if room is available in the rig, its inclusion is recommended to those troubled by ignition noise, both from their own or passing cars.

The principle of operation is quite novel, and a few words on that subject seem in order. Referring to the circuit (Fig. 1), the dual diode is connected across the primary of the last i.f. transformer. When a signal is impressed across this tuned circuit, the capacitors C1 and C2 will charge, and if we neglect voltage drop across the tube resistance, the charge will equal the signal voltage. This will bias the diodes off, so if no discharge path (R1, R2, R3) was present, no further conduction would take place. Due to the presence of these resistors, the charge on the capacitors follows normal amplitude changes.

When impulse noise is present, the tuned circuits in the receiver tend to "ring", producing high amplitude wave-trains at the i.f. This effect is overcome in the limiter, as the diodes will conduct heavily if the instantaneous value of voltage applied to the diodes is in excess of the bias level (EC1—EC2). This heavy current damps the ring, at

the same time lowering the Q of the tuned circuit, reducing the response of the receiver for the duration of the pulse. This effect is assisted if the core of the transformer tends to saturate at the same time, lowering the transfer of energy from primary to secondary for the pulse duration.

To be effective in the elimination of a succession of pulses, the capacitors must be able to discharge toward the average bias level in time to operate on the following pulse. This is taken care of by the control R3, which provides a variable time constant for the discharge path. This control is best located in an accessible position for the operator, and is varied to achieve best suppression. It has been found in practice that this position in no way alters the normal receiver performance. No noticeable distortion is introduced on normal signals, but some overloading occurs on extremely strong ones. Under such conditions, the control is used at its maximum resistance position. It will also be found that normal thermal noise can be suppressed under weak signal conditions, although in this respect the limiter is not as effective as more conventional types. On ignition noise, however, its effectiveness is akin to magic!

As an example, a recent contact from Ballarat to VK3AGV at Colac was carried out whilst mobile. Although Gordon's signal varied from S2 to S7, no difficulty was experienced in copy. At no time was any trace of ignition noise present. Prior to this limiter being fitted, a conventional one was used and signals below S5 were impossible to copy.

The use of this limiter is recommended by v.h.f. operators who are troubled by auto QRM at the home QTH. There is no reduction of receiver sensitivity in any way, so it offers a solution to the age-old problem of the city bound v.h.f. enthusiast, particularly on six metres.

The receiver to which this limiter was fitted is a well known commercial car radio, which is fed from a crystal locked 2 metre receiver. The antenna is a "halo" mounted on the sun visor with co-ax feed. This circuit solved the problem, when the only solution seemed to be to buy a diesel!

So good mobile DX, chaps!

## NEW ADDRESS FOR MAIL TO "AMATEUR RADIO"

All manuscripts, notes and correspondence to "Amateur Radio" should be forwarded to:-

P.O. BOX 36,  
EAST MELBOURNE, C.2,  
VICTORIA.

# A SIMULTANEOUS R.F. BRIDGE INDICATOR\*

BOB FORMAN, W9RJH

The writer was given a dual scale aircraft oil temperature gauge by a generous friend (W9LTT) some time ago and, like any red-blooded Ham, refused to throw it away.

Months later, in search of a lower standing wave ratio, a Micro-Match coupler was purchased with the idea of using it with an existing multi-meter, as an indicator. After changing the test leads back and forth a few times, the light came on and the dual scale meter was carefully removed from the junk box.

After removal of unnecessary parts, the movements were connected to a two contact mike jack on the rear and the coupled unit was fitted with a mating connector.

Since the interest here is in low power, it was unnecessary to add a scale multiplying arrangement of any kind. Above this figure it will be necessary to provide attenuation for higher power readings.

A new scale was constructed and calibrated in the standard unit of Amateur power measurement, the Gob. Since the meter originally contained quite a number of correcting chokes, presumably made up to match the sensing elements in the original installation, it was found that the meter movements were neither linear nor logarithmic, so no attempt was made to calibrate the scale accurately.

The indicating needles were originally painted with luminous paint. In the conversion, the pointer indicating reflected power was painted red and the other black. Every fifth line was inscribed in red to aid in counting and to avoid the necessity of numbering or worry about figure placement on the small scale. Photo fans could, of course, have a field day in scale design with such a unit.

The convenience of being able to read both powers at the same time repays the efforts of construction many times over.

(There are many similar meters going cheaply in disposals and twin 100  $\mu$ A. direction indicators should be ideal.)

Editor "A.R."]

\* Reprinted from "CQ", Dec. 1954.

## W.I.A. SOUTH WEST. ZONE CONVENTION

will be held at  
**GEELONG**

on

11th and 12th APRIL, 1959

A welcome is extended to all those interested to attend. Activity mainly will be centred on 3.5 and 7 mc. and v.h.f. Hotel and dinner bookings must be made not later than one week prior to Convention—10/- deposit for hotel booking. Further information is available from Geelong Amateur Radio Club members and Sunday morning VK3WI Broadcast.

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MODEL	12P1	12P2	10P1	10P2	8P1
Overall Diameter	12½"	12½"	10½"	10½"	8-3/16"
Baffle Opening	11"	11"	8½"	8½"	7½"
Voice Coil Diameter	1"	1"	1"	1"	1"
Voice Coil Impedance ohms at 400 c.p.s.	2.7	2.7	2.7	2.7	2.7
Cone Resonance Range c.p.s.	15-75	45-75	80	80	95-130
Power Handling Cap.—Watts	10	10	8	8	7
RETAIL PRICE	81/-	66/-	75/6	64/1	63/-
POST VIC. INT.	2/11	2/11	2/11	2/11	2/3

MODEL	8P2	6P1	6P2	523
Overall Diameter	8-3/16"	6½"	6½"	5½"
Baffle Opening	7½"	5-9/16"	5-9/16"	4-13/16"
Voice Coil Diameter	1"	1"	1"	1"
Voice Coil Impedance ohms at 400 c.p.s.	2.7	2.7	2.7	2.7
Cone Resonance Range c.p.s.	95-130	80-120	80-120	135
Power Handling Cap.—Watts	7	6	6	4
RETAIL PRICE	52/6	55/6	51/5	42/6
POST VIC. INT.	2/3	1/10	1/10	1/10
	3/6	3/-	3/-	3/-

#### MAGNAVOX WIDE-RANGE SPEAKERS

MODEL	HF5	SWR	SWB	12WR
Overall Diameter	5½"	6½"	8-3/16"	12½"
Baffle Opening	4-13/16"	5-9/16"	7½"	11"
Voice Coil Diameter	1"	1"	1"	1"
Voice Coil Imped., ohms	2.7	2.7	2.7	2.7
Cone Resonance, c.p.s.	130	45	45	45
Frequency Range	130-10K	30-15K	30-15K	40-15K
Power Hand. Cap., watts	4	6	7	10
RETAIL PRICE	55/11	£6/10/0	£6/6/0	£7/9/7
POST VIC.	1/10	1/10	2/3	2/11
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## TOP QUALITY CIRCUIT TESTERS AT TOP VALUE PRICES . . .

### "KEW MODEL TK30-A

Size 4" x 2½" x 1½".



Model TK-30 is a midget size, individual jack-type circuit tester with a colored plastic panel and cabinet.

D.C. Volts: 15/150/750V. (1,000 ohms/V.)

A.C. Volts: 15/150/750V. (1,000 ohms/V.)

D.C. Current: 150 mA.

Resistance: 100K ohm (by 1.5v. internal bat.).  
81/9 + 12½% Tax. Post Vic. 1/10, Int. 3/-.

### "KEW" MODEL TK-50

Size 4½" x 3½" x 1¼".

Model TK-50 is a pocket size individual jack-type circuit tester with an insulated panel and steel cabinet.

D.C. Volts: 10/250/500/1000 (1000 ohm/V.)

A.C. Volts: 10/250/500/1000 (1000 ohm/V.)

D.C. Current: 1/250 mA.

Resistance: 10/100K ohm (by 1.5v. int. bat.).  
£6/7/9 + 12½% Tax.

Post: Vic. 1/10, Int. 3/-.



### "KEW" MODEL TK-70

Size 5" x 3½" x 1¼".

Model TK-70 is a pocket size rotary switch type circuit tester with an insulated panel and steel cabinet.

D.C. Volts: 10/50/250/500/1000V. (2000 ohm/V.)

A.C. Volts: 10/50/250/500/1000V. (2000 ohm/V.)

D.C. Current: 500 uA./25/500 mA.

Resistance: 10K ohm/1 megohm (by 3v. internal battery).  
Decibels: -20 to +22db., and +20 to +36db.

£9/1/4 + 12½% Tax. Post: Vic. 1/10, Int. 3/-.

### "KEW" MODEL TK-90

Size 6" x 4" x 2⅔".

Model TK-90 is a handy size rotary switch type circuit tester with a black bakelite panel and cabinet, having a high sensitivity 45 uA. meter 20,000 ohms per volt on D.C. and 8,000 ohms per volt on A.C.

D.C. Volts: 10/50/250/500/1000V.

A.C. Volts: 10/50/250/500/1000V.

D.C. Current: 50 uA./25/25/250 mA.

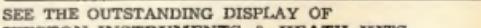
Resistance: 5/50/500K ohm/5Megohm (by 3v. internal battery).

Decibels: -20 to +5db. (0db.—0.0775V.

600 ohm) and +5 to +22db.

£11/4/0 + 12½% Tax.

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# Brief Details of Surplus Radio Equipment

COMPILED BY NOEL SINNBECK,\* VK2OU

**ADF**.—U.S. Navy Receiver. 15 to 1750 Kc. in six bands. Tubes: 6D6 (3), 76 (2), 6C6 (2), 41.

**AM-26/21-O**.—Interphone Amplifier. Tubes: 12A5 (2), 12A6 (2). Designed for use from 28v. dynamotor.

**AFA10**.—Fan-oscillo. Receiver. 115v. a.c. operated and contains panoramic adaptor with if. of 405-505 Mc., 4.75 to 5.75 Mc. and 29-31 Mc.

**APN-1**.—Altimeter: 418-462 Mc. Tx and Rx which measures 3 to 4000 ft. altitude. Size 18" x 9" x 7". Operates from 28v. d.c. and contains 12SH7 (4), 12SJ7 (3), 12H6 (2), VR150, 955 (2), 9004 (2).

**APN-4**.—Radar Oscilloscope. 25 tubes measures 18" x 9" x 12", weighs 50 lb.

**APQ-9**.—V.H.F. Radar.

**APS-15**.—Radar set, 45 tubes, 3 meters, 4 x 115v. 400 cycle supplies, multi-vibrators, 5" and 2" scopes.

**APT-5**.—Tx 1500 Mc. uses 115v. a.c. filaments, no plate supply. Tubes: 6AC7 (2), 6L6, 829 (2), 931A, 522, 6AG7.

**ARB-A**.—Navy Receiver, 195 Kc. to 9050 Kc. Tubes: 12SA7, 12SF7 (4), 12A6. Weighs 28 lbs. Two if. 935 or 135 Kc.

**ARC-4**.—Tx and Rx using four xtal channels in 140 Mc. range. 24 or 12v. d.c. Tx 7 tubes, Rx 13 tubes.

**ARC-5**.—Navy aircraft equipment: Receivers: 190-650 Mc., 1.5-3.0 Mc., 3.0-6.0 Mc., 6.0-9.1 Mc.

Transmitters: 500-800 Kc., 800-1300 Kc., 1.3-2.1 Mc., 3.0-4.0 Mc., 4.0-5.3 Mc., 5.3-7.0 Mc., 7.0-9.1 Mc., 100-156 Mc.

Modulator MD-7/ARC5: two 1625 tubes.

**ARC-429**.—Two-band Rx, 201-400 Kc. and 2500-4700 Kc.

**ARC-428A**.—Two-band Rx, 201-400 Kc. and 4150-7700 Kc.

**ART13/ATC-1**.—Collins Auto-tune Tx, 2.0-18.1 Mc. in 11 channels, 70 lbs. 150 watts r.t. or c.w. 813 final, p.p. 811 mod. V.f.o. and xtal calibrator.

**ASP**.—Radar equipment, 515 Mc.

**ATD**.—C.w. or phone Tx. 540-9050 Kc. Requires 380v. and 1000v. d.c. R.F. osc. 6L6, 814. Speech amp. 6SL7, driver 6L6, mod. p.p. 6L6. 75 lbs. Size: 11" x 12" x 21".

**AVT-112A-Tx**.—2500-6500 Kc. phone. 6, 12, or 24 v.d.c. Six tubes, 6 lbs.

**B-19 Mark II**.—Tx-Rx, 80 and 40 mw.

**BC191**.—Same as BC375E except operated from 12 or 24 volts.

**BC221**.—Frequency Meter. Up to 125th harmonic. Basic frequency 125-250 Kc. and 2-4 Mc. Accuracy 0.005%.

**BC222**.—Rx and Tx, 28-38 Mc. and 38-52 Mc.

**BC223-AX**.—Medium Frequency Tx. 801 osc., 801 p.a., 46 (2) mod., 46 speech amp., 10 to 30 watts r.t. c.w. or m.c.w. 4 xtal frequencies and v.f.o. on switch. 2000-5250 Kc.

**BC224**.—Rx 200-500 Kc. and 1500 to 18,000 Kc. 14v. dc. dynamotor. Identical with BC348 except input volts.

**BC366A**.—Antenna Tuning Unit for BC375 Tx. 150-800 Kc.

**BC312**.—Rx, 1.5-18 Mc., 9 tubes, two r.f. stages. Tubes: 6K7 (4), 6L7, 6C5 (2), 6R7, 6F8.

**BC314**.—Same as BC312 but covers 150-1500 Kc.

**BC322**.—Tx-Rx, 52-65 Mc.

**BC342**.—Same as BC312 but operates 115v. a.c.

**BC344**.—Same as BC314 but operates 115v. a.c.

**BC348**.—Rx, 200-500 Kc. and 1.5-18 Mc. Automatic noise compensator (neon), o.p. 300 or 4000 ohms, xtal filter, a.v.c., m.v.c., b.f.o. 6K7 (2) r.f., 6F7 2nd if., 6B8 3rd if. and 2nd det. 41 output. Operates from 28v. d.c.

**BC357**.—Beacon Rec., superregen., 75 Mc.

**BC375**.—Tx, 150 watts, 200-12,000 Kc. less 550-1500 Kc. 211 osc., 211 r.f. amp., 10 speech amp., 211 (2) p.p. modulators, 5 tuning units: TU5B 1.5-3.0 Mc., TU5B 3.0-4.5 Mc., TU7B 4.5-6.2 Mc., TU8B 6.2-7.7 Mc., TU10B 10.0-12.5 Mc.

**BC403**.—Radar Oscilloscope, 5" tube, 115v., 60 cycle operation. Part of SCR270 and 271.

**BC404**.—Radar Rx for SCR270 and 271, covers 102-110 Mc., 12 tubes, 115v. a.c. 60 cycles.

**BC406**.—Rx from SCR268, covers 201-210 Mc., 15 tubes, 115v. a.c.

**BC412**.—Oscilloscope from SCR268 Radar.

**BC433**.—Compass Rx, 200-1500 Kc., 112 Kc. if.

**BC450A**.—Control box for BC453, etc., Receivers.

**BC453A**.—Rx. This unit is one of series of aircraft Receivers. Weight 6 lbs. Size 5" x 8" x 12". Requires 250v. 50 mA. h.t. and 23.2v. at 0.45A. for fil. All have 300 or 4000 ohms o.p. and are for r.t. or c.w. Tubes: 12SK7 (3), 12SH7, 12A6, 12K8, BC453A covers 190-550 Kc., BC454A 3-6 Mc., BC455A 6-11 Mc.

**BC456A**.—Is Screen Modulator for the BC457A Tx.

**BC457A**. Series Tx's. Designed for use with BC453A series Rx's, 30-40 watts. Tubes: 1623 (2) p.a., 1626 osc., 1629 magic eye. BC457A covers 4.0-5.3 Mc. xtal check on 4600 Kc. with 1629 eye.

**BC458A**.—Same as BC457A. Covers 5.3-7 Mc., xtal check on 6.2 Mc.

**BC459A**.—Same as BC457A. Covers 7.0-9.1 Mc. with xtal check on 8.0 Mc.

**BC603**.—Receiver. 10 channel f.m., uses push buttons or manual. 20-30 Mc. 10 tube superhet, b.f.o. 12 volt operation.

**BC604**.—10 channel f.m. Tx, push button or v.f.o., 20-30 Mc., using 1625 final, 20 watts. 12v. operation. 8 tubes.

**BC620A**.—Tx-Rx covering 20-27.9 Mc. xtal controlled. 13 tubes: ILN5 (4), 1299 (4), 6LC8, 1294, 1281 (2), 1LH4. Weighs 38 lbs.

**BC624**.—Receiver section of SCR522.

**BC625**.—I.F. Tx and Rx, 435-500 Mc. Weight 25 lbs. 400v. at 135 mA., plus 9v. at 1.2a. required. Tubes: 7F7 (4), 7H7 (4), 7E6 (2), 6F6 (2), 955, 316A.

**BC653**.—Tx 100w. c.w., 22w. phone. 2.0 to 4.5 Mc. 814 (2) final, 807 buffer, 1613 m.o. and mod.

**BC654A**.—Tx and Rx, 3.8-5.8 Mc. 12 watts phone, 25 watts c.w. 7 tube Rx using 115 (3), 1A7, 3Q5 (2), 1H5. 6 tube Tx uses 307A (2) in final. Requires 1.5v., 45v. and 90v. for Rx, requires 1.5v., 6v., 84v., and 500v. for Tx. Uses PE103A dynamotor.

**BC659**.—Tx-Rx, i.m. r.t. only. 27.0-38.9 Mc. Xtal controlled, 2w., battery operation.

**BC684-683**.—Tx and Rx f.m. 27-38.9 Mc. Rx 9 tubes, 10 channels, push buttons. 35w. Tx uses 8 tubes, 10 channels, push buttons.

**BC696**.—Same as BC457A. Covers 3-4 Mc. xtal check on 3500 Kc.

**BC701**.—V.h.f. Rx 170-180 Mc. If. 30.5 Mc. 11 tubes.

**BC704A**.—Radar Indicator. Part of the SCR521. Tubes: 5BP1, 6AC7 (4), 6H6 (3).

**BC728**.—Push button Rx. 3 or 8v. 2-5 Mc. 6 tubes.

**BC788**.—Rx, 420-450 Mc. Six if. stages using 6AG5G. 30 Mc. broad-width.

**BC929**.—Radar Oscilloscope, 110v. 400 cycles.

**BC939**.—Antenna Tuning Unit for the BC610 Tx.

**BC946B**.—Same as BC453A. Covers 520-1500 Kc.

**BC947A**.—U.h.f. Tx, 3,000 Mc. 115v. a.c. with blower.

**BC966A**.—I.F.F. approx. 150 Mc. 14 tubes.

**BC1023A**.—Marker Beacon Rx, 75 Mc., uses 6SO7, 6U6G, 6SC7, 12SH7. 12 or 24 v. a.c. 6E5. Same as BC1068A.

**BC1026C**.—Selch-Carlson Beacon Rx 195-420 Kc. Size: 4" x 4" x 6". Tubes 25L6 (2), 6ZV, 6SF7, 6SA7, 6K7. 28v. d.c. is high and low tension.

**BC1267**.—Tx and Rx, 154-186 Mc. 1 kw. pulse osc. Superhet Rx, 2 r.f. stages, 5 staggered l.f.s.

**BD77-KM**.—Dynamotor, 5 volt input, 1000 volts output, for BC191.

**C-1**.—Auto Pilot Amplifier for Radio Models etc. Tubes: 7TF7 (3) amp, 7N7 (3) signal discriminators, 7L4 rectifier.

**CCT46077**.—Tx, 2-20 Mc., 12v. operation. 30 lb. weight. Unit of RBM-2 equipment.

**CR746151**.—Rx, 195-9050 Kc. See ARB.

**DAG33A**.—Dynamotor. 18v. d.c. input, 450v. output at 60 mA.

**DM21**.—Dynamotor, 14v. input, output 235v. at 90 mA.

**DM33A**.—Dynamotor, 28v. input, 540v. at 250 mA. output. Power supply for BC457 Tx and Mod.

**EE8**.—Field Telephone.

**GO-9**.—Tx, 200-18100 Kc., 150 watt, 803 final, v.f.o., 115v. 800 cycles.

**GF11.**—Equipment consists of CW-52063A Tx, CW52014 Tx base, CW-23097 Tx base control box, CW23098 extension control box, CW23049 relay unit, CW47092 coil set.  
**GP-7.**—Tx, 125 watts. 350-8050 Kc. Plug-in tuning units.  
**MN-26.**—Compass Rx. Models "A" to "G" cover 150 to 1500 Kc. two r.f. stages, l.f. 110 Kc. Model "H" top limit 9 Mc.

**PC-77.**—Dynamotor, input 12v., output 175v. 100 mA., 500v. 50 mA.  
**PET3-CM.**—Dynamotor, input 28v., output 1000v. for BC375.  
**PE86.**—Dynamotor, 28v. input, 250v. 60 mA. output.

**PE101C.**—Dynamotor, 12 or 24v. input, output 800v. 20 mA., and 400v. 135 mA., plus 8v. a.c. l.l.a. for BC845.

**PE103A.**—Dynamotor, 6 or 12v. input, 500v. 160 mA. output.

**PE104.**—6 or 12v. input, 90v. 50 mA. output, dynamotor.

**PE109.**—D.c. power plant. Petrol engine and generator, has 32v. output at 2 kw.

**PRS-1.**—Mine detector.

**R5/ARN-7.**—Radio Compass Rx, 17 tubes. Range: 200-1750 Kc.

**R65/APN-9.**—Loran Indicator and Receiver, 35 tubes and 3" scope. 110v. 400 cycles supply.

**R/89/ARN-5A.**—Glide Path Rx. 11-tube superhet. 332-335 Mc. Tubes: 6AG5 (7), 12SR7, 12SN7 (2), 28D7.

**R1155.**—Rx, covers 75-200 Kc., 250-500 Kc., 600-1500 Kc., 3-7.5 Mc., 7.5-18 Mc. If. is 560 Kc. B.f.o. 280 Kc., 2nd harmonic feed.

**RA-1B24.**—Bendix Rx, 150-315 Kc., 315-880 Kc., 880-1500 Kc., 1.5-3.7 Mc., 3.7-7.5 Mc., 7.5-15 Mc. 63v. l.t. 250v. h.t. Tubes: 6K7 (5), 6L7, 6R7, 6K6G.

**RA-20.**—115v. 60 cycle supply for the BC312 and BC342.

**RA38.**—Rectifier, 15kva. Output is 15,000v. at 500 mA., variable. Weight 2040 lbs.  
**RA-58A.**—High voltage supply, 500-1,500 volts at 35 mA., variable for breakdown tests.  
**RA63A.**—Rectifier, 115v. 60 cycle. Output 12v. 8 amps.  
**RA105.**—Rectifier, 117v. 60 cycle input. Output, 2,000v., 610v., 415v., 300v., 200v., all d.c., plus 6.3v. a.c.  
**RAK-7.**—Navy Rx, 9 tubes. 115v., 15 Kc. to 600 Kc.

**RAX1.**—Rx, 4 bands, 200-1500 Kc.  
**RAX2.**—Rx, 4 bands, 1500-9000 Kc.

**RAX3.**—Rx, 5 bands, 7-27 Mc. (2.25 Mc. i.f.). All operate from 24v. dynamotor.

**RC150.**—I.F.F. equipment used with SCR270 and 271.

**RC188A.**—I.F.F. 157-185 Mc., Tx-Rx-Indicator, 62 tubes, 110v. a.c. 60 cycle.

**RL-9.**—Interphone amplifier, 24v. d.c. dynamotor.

**RT34/AFS-13.**—Transmitter and Receiver, 410-420 Mc. If. of 30 Mc., contains 6J8 (5), 6AG5 (9), VR150, 2D21 (2) thyatrons.

**RT1248.**—G.E. Tx and Rx, 435 to 500 Mc. Tx 20w. output, 5 tubes. Rx 10 tubes.

**RU-16/GF-11.**—Tx-Rx, 3000 to 4525 Kc. 6000 to 9050 Kc. Tx and 195-13375 Kc. Rx. 12w. r.t./c.w.

**SCR195.**—Walkie Talkie Transceiver, 52.8-65.8 Mc. 27 lbs. 25 miles range, with handset.

**SCR269F.**—Radio Compass, 17 tubes, 200-1750 Kc.

**SCR274N.**—Command Set. BC453 Rx's and BC457A Tx's, etc.

**SCR474.**—Portable Tx-Rx, covers 40 and 80 mx. 1.4v. tubes in Rx. Tx has 6V6 v.f.o., 6V6 p.a., 6V6 mod.

**SCR522.**—Tx-Rx, 100-156 Mc. 12 watts r.t. 4 xtal frequencies. Tx alone is

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**BC625.** Rx is BC624. Tubes: 832 (2), 12A6 (3), 6G6, 6SS7 (2), 12J5, 12C6, 9002, 9003 (3), 12AH7, 12SG7 (3). Remote control box is BC602A.

**SCR536.**—Walkie Talkie. Tubes: 1R5, 1T4, 1S5, 3S4 (2).

**SCR578.**—Gibson Girl Tx. Auto SOS for sea rescue.

**SCR625.**—Mine Detector, balanced inductance bridge with 1,000 cycle osc., 2 tube amp. with 1G6, 1N5. Two flashlight batts. with 100v. B bst. 15 lbs.

**SPR2A.**—Rx, 1000-3100 Mc. 2C40 u.h.f. osc., 15 tubes, 115v. a.c. operation.

**T-17B.**—Carbon mike (hand), 200 ohm s.b.

**TA-2J.**—Tx, 100 watt c.w., 75 watt r.t. 300-600 Kc. and 2.9-15 Mc. v.f.o. Tubes: 807 (2), 803, 846, 801A, 830B (2).

**TA-12B.**—Tx, 100w. V.f.o. p.p. 807s p.., 300-600 Kc., 3.0-4.8 Mc., 4.0-6.4 Mc. and 4.3-7.0 Mc. Model "C" includes 4.8-7.68 Mc. and 7.68-12.0 Mc.

**TBW.**—Tx, similar to GO-9, 3-18.1 Mc., 150w.

**TBY.**—Tx-Rx, 28-80 Mc. j.w. output, portable.

**TCS-9.**—Rx and 25w. Tx, 1500-12000 Kc. Xtal v.f.o.

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# The Versatile Standing-Wave Ratio Indicator\*

BECOME A BRIDGE EXPERT IN ONE EASY LESSON

BYRON GOODMAN, W1DX

JUDGING by some of the letters received at Headquarters and by remarks heard over the air, not everyone who owns a standing-wave indicator knows the several different jobs it can do around the shack. If there weren't a strict taboo against it, this article would have been called "Getting the Most Out of the S.W.R. Indicator." (There aren't any editorial objections to getting the most out of anything; the objections are to the overworked cliché.)

To make sure that we're all talking about the same thing, let's review a little. Back in the days before co-axial feed lines were available, very few Hams worried about the "standing-wave ratios" on their open-wire lines. A few studious types knew that such things existed on transmission lines, and a very few (non-operator types probably could even make primitive approximations of the s.w.r. if their hands were forced). These primitive measurements consisted of trotting up and down the transmission line with a suitable indicator and finding the values of maximum and minimum voltage (or current). The ratio of the maximum voltage to the minimum voltage was called the "standing-wave ratio," and the hot shots called it the "s.w.r.," for "voltage standing-wave ratio." The resultant number turned out to be the same as the ratio of maximum current to minimum current. It meant very little to anybody but engineers.

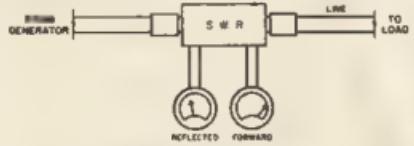
When W.W.II came along it brought, among other things, the rapid development of microwaves and waveguide and solid-dielectric co-axial-line techniques. One thing you don't do on microwaves is to get yourself mixed up with high standing-wave ratios, because the losses mount up and components like magnetrons and such don't remain on their best behavior. First efforts at measuring the s.w.r. in waveguides and co-axial lines involved the old trotting-up-and-down-the-line technique (using probes and slotted lines) and, frankly, it was very slow and a pain in the notebook. The slotted line is useful for measuring some other things but if all you want is a number called the "s.w.r." then something direct reading is more desirable.

The direct-reading instrument showed up after a while, in the form of a device called the "directional coupler." The standing waves on a line are formed when all of the energy isn't absorbed at the load; some of it is reflected back end, with the later energy headed for the load, sets up the standing-wave pattern of maximum and minimum voltage (and current) points along the line. (The mechanics of all this is explained in many books, if you care to dig into it.) The directional coupler makes it possible to measure independently the energy in a line going from the generator to the load and also that reflected from the load back toward the genera-

\* The s.w.r. indicator is a magical little instrument that is taken for granted nowadays, although slightly more than a decade ago you would have been burned at the stake (or at least roasted on the podium) for even suggesting that such a thing was feasible. Commonplace as it is today, however, the sad fact is that many owners don't know how to use s.w.r. information except in the most elementary ways. Read this article and you will see what we mean.

tor. A high s.w.r. occurs when much of the energy is reflected, a lower s.w.r. is obtained when little energy is reflected, and the s.w.r. = 1:1 when no energy is reflected.

The value of the directional coupler should be obvious. If for some reason we want to know the s.w.r. in a line we don't have to trot up and down it (which gets to be difficult in most practical antenna installations); we can make our observations at the transmitter end of the line. With more and more solid-dielectric co-axial line in use by Amateurs, the directional coupler was a real boon. First one to appear was the Micromatch,<sup>1</sup> followed by the Twin-Lamp<sup>2</sup> and then the Monimatch<sup>3</sup> with its several versions. There is an allied device called the "s.w.r. bridge" that will measure the s.w.r.<sup>4</sup> but it cannot be left in the line at all times the way the other devices can. It does, however, have an excellent place in the scheme of things.<sup>5</sup>



## WHY KNOW THE S.W.R.?

But what good are these devices? Smart Hams could always tell when they had power going out the feed line; they used r.f. meters (thermocouple or hot-wire type, depending on the era) when they were in the chips, and they used flashlight bulbs or neon lamps when the groceries came first. But, you say, these modern transmitters with low impedance output have to work into a line that has a low s.w.r. (Not

<sup>1</sup> Jones and Sontheimer, "The Micromatch," "QST," April, July, 1947.

<sup>2</sup> Wright, "The Twin-Lamp," "QST," Oct. 1947.

<sup>3</sup> Nichols, "The Monimatch," "QST," Oct. 1947.

<sup>4</sup> Pattison, Morris, Smith, "S.W.R. Meter for Co-axial Lines," "QST," July 1947.

<sup>5</sup> Corderman, "A Composite Test Set," "QST," Dec. 1955.

necessarily so, but it's a popular misconception.) Phoeey! Low-impedance output has been used for many years (ever hear of "line coupling"?), and we have been able to load transmitters, and properly, too. Suppose you have a Monimatch and a coax-fed dipole, and the indicated s.w.r. is 2.2; what do you do about it? (You tune up in the usual fashion, say you have "a fairly low s.w.r." and continue to operate, that's what you do!)

What we're driving at here is simply this: Many of the owners of s.w.r. indicators are merely using them as expensive output indicators and conversion pieces. They aren't beginning to make use of the capabilities of the instruments.

## WHAT THE S.W.R. INDICATOR CAN DO

The Micromatches and Monimatches consist of (1) an instrument that you connect in the line, (2) a two-position switch, and (3) a meter. The switch points are labelled "Forward" and "Reflected," meaning that in the Forward position the meter reading is proportional to the power going toward the load, and in the Reflected position the meter reading is proportional to the power reflected (not absorbed) by the load. Whenever any reflected power is indicated it means that some of the power present is "reflexive" or "apparent"; this may foul up your thinking and confuse your arithmetic if you aren't familiar with real versus apparent power, or power factor, but don't let it throw you; the reflected power isn't dissipated in your transmitter, and isn't even does it run up your line losses some.<sup>6</sup>

Fig. 1.—Standing-wave indicators exist in several different forms and are identified by as many different names. The directional couplers discussed in this article all have three points in common. They connect the line so that they can handle the full transmitter power, and they measure the s.w.r. by comparing the Forward and Reflected powers.

Sometimes the meters are calibrated in watts, but more often you merely use the relative readings. The meter can be calibrated to indicate the s.w.r. because the s.w.r. can be found from a comparison of the Forward and Reflected readings. A Ham with two meters could dispense with the switch and use a dual indicator like that pictured in Fig. 1. Don't let those fancy titles like "generator" and "load" scare you off; these are merely to show that the power source is at the left and the thing you're delivering the power to is at the right. The "generator" is usually your transmitter but it could be a driver stage or a signal generator; the "load" is usually the antenna but

<sup>6</sup> Goodman, "Losses in Feed Lines," "QST," Dec. 1956.

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Model 12 3/16" (Push-on)	6, 12, 24-27	12	0.5 oz.	6.25"	Radio, Television, and Telecommunications assemblies.
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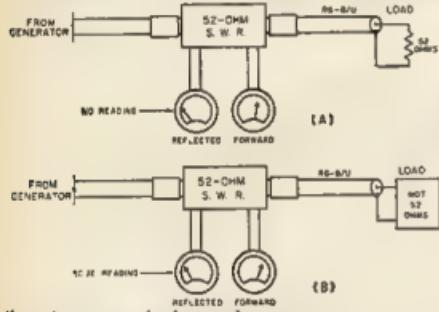
MSP154

Amateur Radio, March, 1959

it could be the input circuit of a driven amplifier or a dummy load. Any of the power-handling instruments (Micromatch, reflectometer, Monimatch) have a negligible effect on the s.w.r. in the line to the left, but this isn't necessarily true of the resistive s.w.r. bridge referred to earlier.

In this enlightened age practically everyone knows what the meter readings will be when the load has a resistance equal to the impedance of the line. (The "impedance" of the line is determined by the physical and electrical characteristics of the line; you know RG-8/U to be 52 ohm line, RG-11/U to be 75 ohm line, and so on.) If the line is RG-8/U or some other 52 ohm line and the load is 52 ohms, when we turn on the generator the Forward meter will show something but the Reflected one will show nothing, as in Fig. 2a. The directional coupler is labelled "52 ohm S.W.R." to remind you that if it were designed for another low-impedance value we wouldn't get the same results (the Reflected meter wouldn't read 0).

This case with the load equal to the line impedance is of course a familiar



thing to anyone who has used an s.w.r. indicator. The load doesn't have to have an ohmic resistor as shown in Fig. 2a; it can be, and more often is, the radiation (plus ohmic) resistance of an antenna. A standing-wave ratio of 1:1 means that there is zero reflected power, and the losses in the line are a minimum when the reflected power is zero. The length of the line should have no effect on the s.w.r.; the s.w.r. is determined solely by the relationship between the line impedance and the load.

When the load is anything other than a resistance equal to the line impedance, some reflected power will be indicated, as represented in Fig. 2b.

#### USING THE DIRECTIONAL COUPLER

Getting down to cases, here are some of the ways you can use the directional coupler:

- To indicate resonance and proper coupling in the transmitter when no antenna coupler is used.

The way many Hams use the things, by tuning the output amplifier for the highest indication of Forward power without burning up the transmitter. Manufacturers of s.w.r. indicators certainly don't object to this application, but a less-expensive indicator will serve just as well.

#### (2) In the line between transmitter and antenna coupler.

Permits adjusting the antenna coupler to give an s.w.r. of 1:1 in the line between transmitter and coupler, desirable with pi-network output and when a low-pass filter is used. The low s.w.r. also minimizes losses in this length of line, although this is usually of minor importance in what is normally a short length. Remember that your adjustments do not affect the s.w.r. in the line between coupler and antenna. However, you can use the s.w.r. indicator in the line between coupler and transmitter to measure the s.w.r. on the line between coupler and antenna.<sup>7</sup>

- To adjust coupling at input circuit of final amplifier, when amplifier is coupled to driver through coaxial line.

When this is done with driver and amplifier running at normal power, the resultant coupling condition for a mid-band s.w.r. of 1:1 on the short coupling line also gives the best band width, which means you don't have to retune as often when changing frequency within a band.

the s.w.r. indicator up at the antenna; if you have a light mast or tilt-over job that won't support you, rig up a string drive to adjust the capacitor with the antenna up in the air. The length of line usually isn't very important below 30 Mc., but above 50 Mc. the s.w.r. indicator is best used no more than a few wavelengths from the antenna. When the losses in the line begin to mount up, as they will in long lines at v.h.f., you will get indications of a match at the transmitter end of the line that aren't true at the antenna end. The extent of this effect is shown in Fig. 3. We've seen a coil of cable a few hundred feet long used as a dummy load for a v.h.f. transmitter; it made very little difference in the s.w.r. if the line was terminated or not.

#### (5) To check antenna resonance.

Another of the more useful applications. If an antenna is used as the termination for a line, the frequency of minimum (not necessarily 1:1) s.w.r. is the frequency at which the antenna is a pure resistance (no reactance), and this is the resonant frequency of the antenna. Thus to find the resonant frequency of an antenna fed directly by coaxial line, it is only necessary to vary the frequency of the transmitter until the frequency of minimum s.w.r. is found. (Don't just look for minimum Reflected power; you have to make sure that the Forward power is still there, and this will probably require a few coupling adjustments at the transmitter as you run over the band.) If the minimum s.w.r. occurs at the high frequency of the band and you prefer to be peaked at lower frequency, lengthen the antenna. If the minimum s.w.r. occurs at the low frequency end and you have your heart set on the high, make with the cutters.

Fig. 3.—(a) When the line is terminated in a load equal to the impedance of the line, the Reflected power is zero and the s.w.r. is 1:1.

(b) Any other termination will result in some Reflected power.

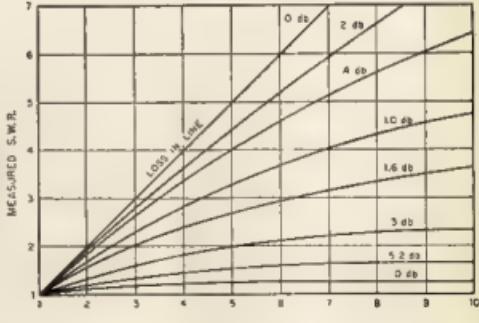


Fig. 3.—Indicated s.w.r. as a function of true s.w.r. This clearly demonstrates the need for measuring the s.w.r. near the load when making adjustments at an antenna if a long (lossy) line is used. (From an article by John Low, by courtesy of *Electronics magazine*.)

#### (4) To adjust matching section between antenna and line.

One of the very useful applications. The adjustment of a gamma match is a cinch with an s.w.r. indicator, and sheer guesswork without. With the antenna resonant (formulas length merely vary the gamma until a 1:1 or very low s.w.r. is indicated). The gamma match with an adjustable capacitor is the most convenient to use. If you can climb the tower you can use

You might be tuning a dipole made of No. 12 wire, or one of the new XTC4U specials (the one made from 14 beer cans and a piece of wet string); you can still use the technique. Just remember to make the resonance check with no matching section between the antenna and the line,<sup>8</sup> and be sure you find the minimum s.w.r. and not just the minimum Reflected power with some fixed transmitter coupling.

<sup>7</sup> Graeme, "Universal S.W.R. Measurements with a Coaxial Bridge," *QST*, Dec. 1959.

<sup>8</sup> The line should be connected in the centre of a halfwave antenna or in a current loop (point of maximum current) in a long wire.

The above is based on the fact that near resonance the radiation resistance of an antenna changes slowly. Considering it to remain constant about the resonant frequency, any reactance added to the resistance will increase the s.w.r. when this antenna is used as a load for a line.

If you have any curiosity about your antenna, you can even get a fair idea of what the antenna impedance is, just by measuring the s.w.r. at resonance and then making an educated guess. For example, suppose the s.w.r. turns out to be 1.6 at the resonant frequency, and you are using 52 ohm line. You

know that the antenna impedance must be either 83.2 ohms ( $52 \times 1.6$ ) or 32.5 ohms ( $52 \div 1.6$ ), from the relation

$$Z_0 = R_1 (\text{s.w.r.}) - R_2 \div (\text{s.w.r.})$$

where

$Z_0$  = Line impedance.

$R_1$  = Resistive termination smaller

than  $Z_0$ .

$R_2$  = Resistive termination larger than  $Z_0$ .

Your educated guess would probably be the 32.5 ohms, in the case of a multi-element beam.

If your meter reads Forward and Reflected power, the s.w.r. can be determined by the use of Fig. 4.

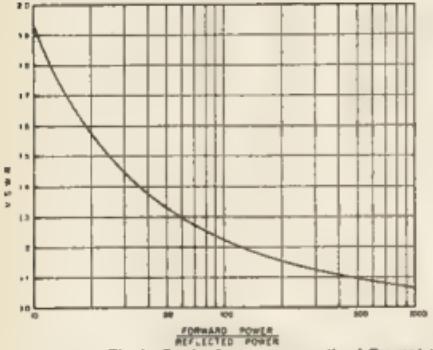
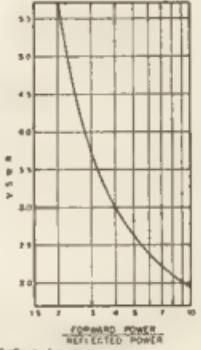


Fig. 4.—Graph of s.w.r. versus ratio of Forward to Reflected power.  
Use the chart on the right for low power ratios.



## EFFECT OF HARMONICS

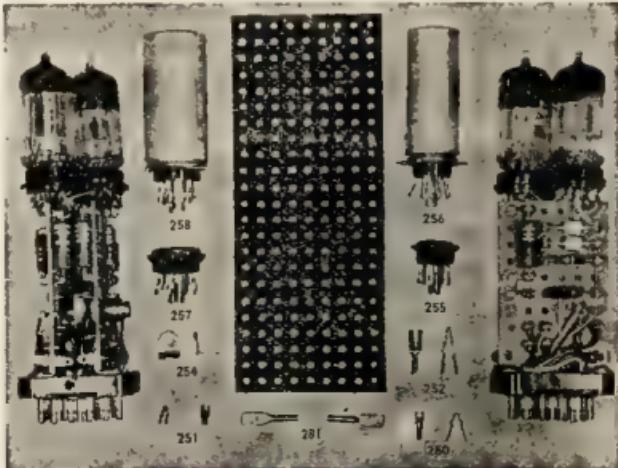
There may be occasions when the Reflected reading will run higher than the Forward. This doesn't necessarily mean that the unit has gone haywire; in most cases it will be an indication of a serious u.h.f. or v.h.f. parasitic oscillation in the transmitter. In the case of a c.w. transmitter, the Reflected reading may jump up to a high value as the key is closed and then drop down to a more normal value; this means that there is a momentary v.h.f. or u.h.f. parasitic oscillation as the key is closed.

When you are getting down to very low readings of reflected power, you have to avoid any appreciable spurious content in the transmitter if the load you are adjusting is frequency sensitive. In other words, if you are adjusting something that tunes, like a gamma match or an antenna coupler, it will give a proper termination for the line at only one relatively narrow band of frequencies. You will tune and tune and never get the s.w.r. down to 1:1 if there are a few watts of harmonics or overtones in the transmitter output.<sup>8</sup> These days most transmitters are fairly clean, but the point is mentioned on the off chance that one or two readers may beat their brains out trying to match up something that is matched all the time. Most Hams don't try to match this close, but there are a few persnickety ones and we want them to be happy, too.

<sup>8</sup> Grammar, "Notes on S.W.R. Measurement," (Technical Topic), "QST," May 1953.

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MEET THE OTHER AMATEUR  
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## ALAN BROWN\* VK3CX

INTEREST in Amateur Radio commenced in 1923 with a home-made crystal set, but Alan had to wait until he reached the age of 18 in 1928 before he gained his A.O.C.P. and commenced operation as VK3CX on the old 32 metre band.

Amongst his early memories of those days, one is outstanding. He was QSO-ing with VK3RX (now VK3ARX), who lived about three quarters of a mile away. Both operators criticised the other's signal to such an extent that they agreed they should hear their own signals; so, leaving all switches in the appropriate positions, VK3CX went to VK3RX, and VK3RX went to VK3CX and again made QSO, each then listening to his own signal. The result was that each of them re-built immediately.

Many transmitters have been built since that first rig which used a UX201A in a split Hartley circuit—the power supply being four "slop" jars with the 230 volt a.c. mains on them.

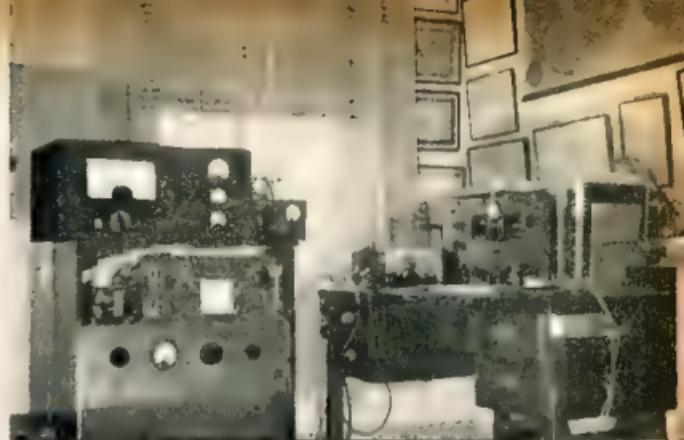
The present transmitter is a Geloso v.f.o. driving straight into a pair of 6146s in parallel, running cool at 100 watts. Incidentally, the Geloso is also underloaded—it is rated at 425 volts, but only 325v. is used. The circuit is a modified version of the pi-coupled all-band affair which is well known. The antenna is a short "longwire" type, being 1½ waves long and fed at ¼ wave with 180 ohm pair. It is about 20 feet high.

The receiver was once an AMR200 (a modified version of the Super-Pro), but this has been considerably modified—seven stages have been replaced with modern tubes.

Additional equipment is a Heath Kit "Q" Multiplier, a Barker & Williamson electronic transmit-receive switch, a Class "C" wavemeter, a multimeter and the usual gadgets that make for successful operation of a Ham Station.

Many certificates decorate the walls, and amidst awards for overseas contest placings, are awards for D.X.C.C., W.A.C., W.B.E., BERTA, R.C.C., O.T.C., W.A.P., W.F.E., W.A.N.E., W.J.D.X.R.C., W.F.J.S., D.U.F., W.A.-S.M., KZ5-25, WAZAD, 50P-50W, W.A.N.A.C.A., D.P.F., C.A.A., W.A.C.-Y.L., O.H.A., KP4-25 WAZ and it is understood that he is eligible for many others. He is also a member of the First Class Operators' Club (F.O.C.) and the A1 Ops. Club. It was noticed that in several of these Awards mention was made of the fact that he was the first VK to achieve them.

Although present operation is mainly on 14 Mc. c.w., VK3CX has worked on all bands from 5 to 80 metres, but he says that at present he is sticking to 14 Mc. as it offers the best opportunity for DX ragchewing.



We asked why he didn't use telephone and were told that although he had made W.A.C. on phone pre-war, he preferred c.w. which, he says, "he reads more easily than phone".

VK3CX, during the day, is Secretary to the Minister of Transport, and we accidentally discovered that Ham Radio is only a sideline as his main interest is philately—he is a member of the Executive Council of the Royal Philatelic Society of Victoria.

The 1939-45 war did not curtail his operating to any great extent as he was

a member of the R.A.A.F. Wireless Reserve and with many other Hams was called up early in September 1939. After service as a W/T operator, he gained a commission as a Signals Officer and was eventually promoted to the rank of Squadron Leader.

DX worked is 280 countries, with over 250 confirmed post-war, and Alan denies that it was in respect of him that the famous quotation was made recently—"Oh him. He's worked more countries than he can get cards from!"

### RUSSIAN PHONE CONTEST

The U.S.S.R. Central Radio Club is organizing an International Radio Telephony Contest of Radio Amateurs to be held on March 14-15, 1950. In connection with the Conference of S. Popov, the great Russian scientist, and invites Radio Amateurs to take part in this event.

A Radio Amateur of any country may score as many points as he can for contacts with Radio Amateurs from different countries participating in the Contest. The time of the Contest is 2100 GMT on March 14 to 0800 GMT on March 15, 1950.

Bands which are used are 20, 21, 14 and 7 Mc. on telephony only. All participants should exchange five-digit control numbers made up of RS and the ordinal number of the contact, e.g. 58001.

General call during the Contest will be that internationally used by Radio Amateurs.

During the Contest only one Radio contact with the same Radio Station will be taken into consideration.

Each contact with stations of different continents, irrespective of the band, will yield two points.

Two contacts between stations of the same continent, but not within the same country, will yield one point.

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Each contact between stations within the same country will be disregarded; it will be taken into consideration only for the country as a multiplier.

The total number of points gained by a participant will be multiplied by the number of countries with which he establishes contacts.

Diplomas will be issued to the first ten placings in each country. Memorable cards will be sent to all participants of the Contest.

Each participant, irrespective of the number of points scored, should make a report which should be sent to the Chief Judging Board not later than five days after the end of the Contest Address: P. O. Box 85, Moscow, U.S.S.R.

The report should contain: Call sign of station, Christian and surname, town, transmitter power, the total number of points in the contest. The log is to be made up of seven columns: Date, band, time (GMT), correspondent's call sign, control number received, control number sent, points. Also to appear are the names of stations for the contact number of countries, and total number of points. Sign your name and date.

### U.S.S.R. DIPLOMA "W-100-U"

The Diploma "W-100-U" is issued by the U.S.S.R. Central Radio Club, to given Radio Amateurs who have established two-way radio contact with 100 different Amateur Radio Stations of the Sverdlovsk Region, A. S. Popov's birth-place, in the period of January 1 to December 31, 1950.

Both telephone and telegraph radio contacts established in one or several Amateur bands: 3.5, 7, 14, 21 and 28 Mc. are taken into consideration.

35 and 35s are minimum RST and RSM for being awarded the Diploma.

To be awarded the Diploma it is necessary to send to the U.S.S.R. Central Radio Club 100 QSL cards confirming the establishment of radio contact. A list of the contacts, indicating date, time, bands and technical data of the QSO, the correctness of which is certified by a member of the W.L.A., may be forwarded in lieu of QSLs.

Forwarding address: U.S.S.R. Central Radio Club, P. O. Box 85, Moscow, U.S.S.R.

\* 8 Mangarra Road, Canterbury, E.7. Vic.

# W.I.A. Victorian Division's New Premises

IT is November 19, 1958. A group of people stand on the footpath in the shade of a tree outside a two-storey house, No. 478 Victoria Parade, East Melbourne. An auctioneer is extolling the virtues of the place and calling for bids. The group include Divisional President VK3YS and Hon. Secretary VK3JL. VK3NJ is bidding on behalf of the Victorian Division. They already are well aware of the virtues, but have to think too of all the members. A tense and exciting moment—and success for the W.I.A. History in the making. The bidding ceases at £5,125. Some head-shaking in the negative, they want more. VK3NJ negotiates, it is all over in a matter of minutes. We obtained the property for £5,500—a bargain.

Thus ended a long and difficult search for a home for the Victorian Division Headquarters, we have obtained our own premises. No more threats of eviction or increasing rent charges. Away from the city noise, but still easily accessible to all members.

Where had all this started? In searching for information about the occupation of the old rooms at 191 Queen St., some interesting facts concerning rooms and meeting places came to light. Victorian wireless experimenters first got together as an organised body in 1910. One meeting place was in the Oxford Buildings in Bourke St. After W.W.I, meetings were held in the old A.W.A. building, Little Collins St., then in 1920 they moved to a room in Arcade Hall, Chapel St., Prahran. Later a shift was made to Kelvin Hall, Collins Place. Incidentally, during the 1920's a block of land in Burwood was purchased by the Division and a brick building erected thereon. VK3BQ built and installed the transmitters. However, due to its remoteness (at that time), members would not travel to the site and little use was made of the building. The property was eventually sold.

In 1934, after some years at Kelvin Hall, the rooms at 191 Queen St. were acquired on a rental basis. "Amateur Radio" for September of that year contains quite a few expressions of pleasure in reporting this acquisition. (Of passing interest, an advertisement in the same issue indicates that the full member's subscription was £1 per year. A substantial sum in those days.) The Division now had its own office, transmitter, library, A.O.C.P. classroom and meeting place under one roof.

Shortly after W.W.2, an Administrative Secretary was installed. The only Division to have its own rooms complete, located in a central spot and which now were open during the day. There was only one logical improvement to this, purchase our own rooms. In any case it was known that sooner or later a move would have to be made. The owners wanted 191 for their full use. And there was the disquieting news that rent controls were to be lifted in August 1959. Rental charges would have soared beyond our means.

Over recent years the search for a suitable place has been going on, with East Melbourne the favoured spot although a difficult one—places scarce and prices high. Buildings were inspected in South Melbourne, Carlton, etc. Suggestions from VK3OM checking newspaper adverts, revived our interest in East Melbourne. The property at 478 Victoria Parade (amongst others) was

discovered and members of the Building Committee and Council inspected it. All were impressed with the good condition and general layout. Time was short, this was only a few weeks prior to the auction date. Hurried meetings, legal enquiries, the final decision.

And here it is—on this page you will see a photograph and on the opposite page plan drawings of the two floors.



Victorian Division's new premises at 478 Victoria Parade, East Melbourne

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The building is an old brick house, recently renovated and largely rebuilt. All rooms had been decorated in modern bright colors and wallpapers. The large room on the second floor meant no further alteration necessary, just right for A.O.C.P. class and lecture room. Other rooms will serve as xmtr. room, library, reading room, etc. There is a bathroom; a kitchen with electric stove, stainless steel sink and cupboard. Internal and external toilets.

As has been mentioned before in our Divisional notes in "A.R." and over VK3WI, working "bees" got on the job in early January to prepare the place for initial occupation. Floors were punched and sanded. Lino laid, sealed, and polished in all rooms except bathroom and kitchen. These have concrete floors. Heavy power cable installed to xmtr. room. Curtains hung on all windows. Equipment at 191 dismantled and transported to the new address—a hectic few weeks.

V.H.F., S.W.L. and A.O.C.P. instructional groups commenced their use of the lecture room late in January. The shifting of equipment and removal of aerials from 191 completed by the middle of February. Mrs. May installed as librarian, etc., on Monday, Feb. 16. Follows the sorting out, planning of VK3WI, etc., and ideas for the future.

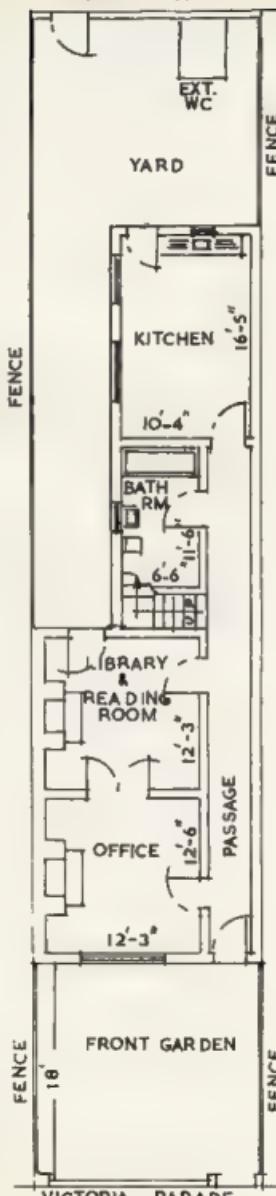
Country members should find the new premises of value. A place to meet your Amateur friends, read through the latest overseas magazines, even take a shave and clean up whilst waiting for the XYL to do her shopping. The location is on the south side of Victoria Parade, approx. midway between Simpson and Powlett Sts., a few hundred yards west from Punt Rd. If you are coming from the city, take a tram in Collins St., or Latrobe St., heading for Kew, North Balwyn, Balwyn, or Mont Albert. Get off at Stop No. 20 opposite Powlett St. Victoria Parade is the continuation of Victoria St. where there is a double lane roadway, with the trams running through the plantations in the centre. The Eastman Reserve is opposite our block. Farther south, across Albert St. there is a children's playing park and tennis courts. Preliminary receiving tests seem to indicate a very low electrical noise level. All in all, quite a pleasant location.

Appreciation is recorded here to all those members who have so far assisted with this project and to those who have so willingly given their time in the preparatory work. Much yet remains to be done, aerials and equipment to be installed, cupboards and shelving for library, etc. And there is the important matter of finance. A deposit of £2,750 has been paid. Our long established building fund came in very handy here. The balance and legal expenses remain. Let's get it paid off and avoid high interest charges. To cover this, a debenture scheme is being prepared and members are urged to support it to the full.

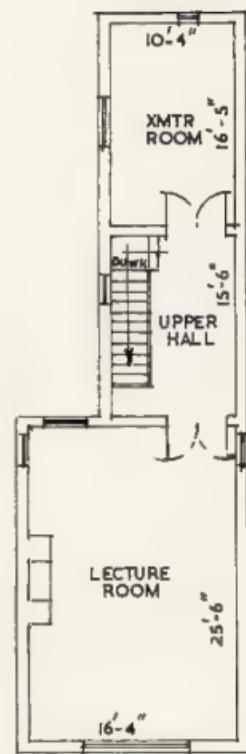
By the way, check "A.R." for last January, page 21—we have residential neighbours, so cut the noise, especially late at night; do not park cars at any time in the adjoining laneways; keep the place clean and tidy. It is your property—take an interest in it.

Note.—In future, please address all mail to P.O. Box 36, East Melbourne, C.2. New phone number is JA 3535.

### RIGHT OF WAY



GROUND FLOOR PLAN



1ST FLOOR PLAN

# AMATEUR CALL SIGNS

SEPTEMBER-DECEMBER, 1958

## NEW CALL SIGNS

- VK— New South Wales  
 NST— K. J. Leadman, 2 Ivor St., Lidcombe.  
 2TV— C. G. Weiss, 27 Linthorne Ave., Croydon Park.
- 2UL— D. Evans, 19 The Crescent, Dee Why.  
 2KS— K. G. Scott, 17 Thompson Cres., West Tamworth.
- 2ZV— O. C. Winterbottom, 7 Cross St., Balgowlah.  
 2AFA— A. Fisher, 33 Carters Lane, Wollongong.
- SACQ— F. A. Pearson, Frederica St., Narrandera.
- SADA— R. F. Daniel, 27 Broughton St., Camden.
- 2AEZ— A. M. Marstella, 34 Gallipoli St., Lidcombe.
- 2AHV— D. E. Hill, 61 Elwin St., Narrandera.
- 2ALA— F. T. Adams, 38 Brougham St., East Gosford.
- 2ALR— R. K. Richardson, 15 Bowden St., Parramatta.
- 2ALV— D. E. Hill, 185 Church St., Wollongong.
- 2AMA— C. J. Molof, 54 Meeks St., Kingsford.
- 2ANB— R. J. Batty, 11 Hawkins St., Artarmon.
- 2ASB— A. J. Bowman, 197 Cronulla St., Cronulla.
- 2ASI— J. Sullivan, Newcastle Sun, Bolton St., Newcastle.
- 2ASV— K. J. Smith, 15 Excelsior Parade.
- 2AWF— B. J. Foster, Avoca, "Blala," via Gundagai.
- 2AXI— I. McCosker, 123 Warialda St., East Moree.
- 2AXK— D. A. Kinnella, Christian Bros. College, Crown Lane, Wollongong.
- 2AL— A. A. Williams, 21 Queen St., Clayton.
- 2ZCB— R. A. Lovell, 16 Tricia St., Woolstonecraft.
- 2CL— R. F. Lopez, 22 Douglas Rd., Padstow.
- 2ZCN— N. McNeilly, 12 Barrings Rd., Griffith.
- 2CT— C. Grant-Thompson, R.A.A.F., Wulhampton.
- 2EFY— R. J. Flynn, Experiment Farm, Yanco.
- 2EJI— B. J. Mason, 85 Carrington Rd., Wabonga.
- 2EL— R. W. Luther, 88 Blackland Rd., Eastwood.
- 2EW— A. B. Walker, 6 Taylor Close, Miranda.
- 2FC— H. Collins, 1 Melrose St., Epping.
- 2FF— J. Lak, Lot 22, Douglas Rd., Doonside.
- 2JF— P. J. Butcher, 58 Rodlyn St., Ashbury.
- 2ZMK— K. M. McKay, 44 Miner Cres., Wollongong.
- 2ZMO— P. O'Brien, 28 Irrewang St., Raymond Terrace.
- 2ZMP— M. F. Potts, 28 View St., Waverley.
- 2RW— R. Weasel, 49 Rose St., Grenfell.
- 2ZWN— W. Nicholl, 1 Rex Ave., New Lambton.
- Victoria
- 3BN— P. E. Linden, 1 Bishop Court, Mt. Waverley.
- 3DF— M. D. Dalton, 20 Collins St., Melbourne.
- 3EG— D. P. Clarke, 41 Alwyn St., Mitcham.
- 3FN— B. M. Ferguson, No. 2, Second Court, McGowan Ave., West Preston.
- 3HU— J. A. Hunt, 19 The Boulevard, Eildon.
- 3JF— F. H. Heine, 24 Desauville St., Beaumaris.
- 3KJ— J. K. Jackson, 100 Victoria St., Bendigo.
- 3OK— J. Craddy, Fishermen's Bend Hostel, Lorimer St., Port Melbourne.
- 3UW— R. B. Wallace, Station: Amphitheatre; Postal: 1 Area Workshop, Bandiana.
- 3VC— D. J. Robinson, 200 Wetherby Rd., Ringwood.
- 3ZW— D. J. Anderson, 154 Mackle Rd., East Bentleigh.
- 3AAC— P. F. Crooks, 145 Queen St., Collie.
- 3ACT— J. E. Robertson, 201 William St., Tullamarine, via West Broadmeadows.
- 3ACW— G. A. Welsh, 151 Alan St., Highett.
- 3AHZ— W. H. Hanson, 14 Cavalier St., Oakleigh South.
- 3AJL— J. E. Robertson, 3 Payne St., Newport.
- 3AIQ— J. E. Robertson, C/o Herald-Sun TV Station, Olinda.
- 3AJD— J. W. Gadson, 11 Ford St., Ringwood.
- 3AKK— A. Kassimates, 34 Rowan St., Bendigo.
- 3ACA— F. P. Alice, "East Wood," Barina Cres., Croydon.
- 3ARC— R.A.A.F., Laverton Radio Club, R.A.A.F. Base, Laverton.
- 3ASE— D. G. Anderson, Blackburn St., Strathfield.
- 3ASH— M. C. Hart, 38 Charles St., Burwood.
- 3AZH— E. J. Rasmussen, 541 St. Kilda Rd., Melbourne.
- 3AUM— C. P. L. Milnes, Wilson St., Berwick.
- 3AYH— M. J. Hamilton, 37 Ryedale St., Reservoir.
- 3AYE— F. H. A. McLymont, 95 Arthur St., Fairfield.
- 3AZJ— D. G. Johns, 245 Liberty Pde., West Heidelberg.
- 3ZAC— W. L. Riss, 163 Derby St., Kew.
- 3ZBA— M. W. T. Cherry, 11 Nelson St., Foster.

- 3ZBB— R. O. Griffin, 14 Emily St., Murrumbeena.
- 3ZBE— J. A. Retchford, 9 Summit Rd., Burwood.
- 3ZBO— C. P. O'Brien, 704 Peel St., N. Ballarat.
- 3ZC— R. L. Robinson, 43 Marina Rd., Mentone.
- 3ZFP— M. C. Cocking, 9 Inverness Way, North Bolwyn.
- 3ZFS— A. J. Stewart, 11 Woodstock Rd., Mt. Waverley.
- 3ZFT— R. G. Terrell, 77 Croydon Rd., Surrey Hills.
- 3ZFY— R. H. Baker, 84 Lily St., Bendigo.
- 3ZFX— G. S. Begg, 157 Banksia St., Heidelberg.
- 3ZGJ— A. C. Stebbings, 31 Rupert St., West Footscray.
- 3ZGG— J. H. Goding, 24 Prospect Hill Rd., Camberwell.
- 3ZGH— N. J. Helmond, 274 Dorset Rd., Boronia.
- 3ZGI— O. W. Guy, 22 Williams Rd., Shepparton.
- 3ZGO— J. E. Orre, 18 Maribyrnong Rd., Ascot Vale.
- 3ZGP— D. H. Poynter, 17 Perth St., West Heidelberg.
- 3ZHW— A. M. Norwood, 114 Grange Rd., Alphington.
- 3ZIE— D. L. Coenders, 49 Cookson St., Camberwell.
- 3ZIJ— R. J. Johnston, A.R.D.U., R.A.A.F. Base, Laverton

### Queensland

- 4BQ— C. G. S. B., Station: 177 Bowden Rd., Townsville; Postal: 187 Bowden Rd., Townsville.
- 4CR— J. Conway, 31 Anne St., Alkimosvale, Townsville.
- 4LW— C. W. Haughton, 149 Station Rd., Oxley.
- 4NC— R. J. Nuttall, 80 Duke St., Toowong.
- 4OL— A. J. Hansen, 181 Raymond Rd., Alderley.
- 4OM— M. N. O'Burke, 27 Humphrey St., West End, Townsville.
- 4VM— K. N. 1818 Pitt St., Wavell Heights.
- 4WW— N. B. Walden, Dolby & Rankines Bldg., Pacific Highway, Surfers Paradise.
- 4ZBX— M. J. Palmer, 24 Glenorchy St., Corinda.
- 4ZBY— L. Guralnick, 180 Hardgrave Rd., West End, Burban.
- 4ZBR— B. M. Frenchy, Station: 27 Charlotte St., St. Vennus; Postal: 145 Braun St., Deagon.
- 4ZCA— D. C. Price, Scotts St., Biloela.
- 4ZCB— J. L. Lightbody, 21 White St., Wavell Heights.
- 4ZCR— R. E. Hunt, Milora, via Mundulla, Farnham Line.
- 4ZED— K. B. Steel, 31 Ernest St., Manly

### South Australia

- 5EM— B. R. Meldrum, Ardrosson.
- 5EQ— A. H. Robertson, 26 Nelson St., Port Pirie.
- 5GO— D. A. Page, No. 1 A.T.U./T.A.S., R.A.A.F.
- 5WQ— W. J. W. Wynnus; Station: 145 Braun St., Deagon.

### North Australia

- 5YM— B. R. Meldrum, Ardrosson.
- 5ZQ— A. H. Robertson, 26 Nelson St., Port Pirie.

### Western Australia

- 5WY— D. N. Freckleton, 8 Firebrace St., North Fremantle.

### Tasmania

- 5YV— K. F. Chick, 2 Eurythmic St., Mordialloc.
- 5ZC— A. H. Robertson, 26 Nelson St., Port Pirie.

### New Zealand

- 5ZN— K. N. 1818 Pitt St., Wavell Heights.

### Australasia

- 5YM— B. R. Meldrum, Ardrosson.

### Victoria

- 5AP— H. Bowley, 49 Herres Av., Nunawading.

### South Australia

- 5BC— B. D. Cooper, 10 Marx St., Coburg.

### Victoria

- 5EV— D. N. Freckleton, 8 Firebrace St., North Fremantle.

### Western Australia

- 5FW— K. F. Chick, 2 Eurythmic St., Mordialloc.

### New Zealand

- 5ZL— C. A. McTiggett, 87 Ryeburne Ave., Hawthorn East.

### Victoria

- 5OY— D. B. Iliffe, 8 Commercial Rd., Mentone.

### Victoria

- 5PN— D. B. Schroeder, Station: Mangalore Airport, Mangalore; Postal: P.O. Box 1, Avoca.

### Victoria

- 5RU— F. R. Haynes, 6 Lelona St., Burwood.

### Victoria

- 5SV— S. G. Edwards, C/o 293 Richardson St., Middle Park.

### Victoria

- 5SW— J. M. McConnell, 2 Adelaide St., High-ton, Melbourne.

### Victoria

- 5TF— G. W. Dennis, 311 Francis St., Yarraville West.

### Victoria

- 5TM— B. H. Hellier, Lot 151, Elizabeth St., Clayton.

### Victoria

- 5US— G. C. Churchward (Mrs.), 26 Barbara St., Vermont.

### Victoria

- 5VL— M. C. Churchward, 26 Barbara St., Vermont.

### Victoria

- 5XH— C. A. Hislop, Lot 22, Roncifile Rd., High-ton, Geelong.

### Victoria

- 5YL— M. A. Henry (Mrs.), 1877 Dandenong Rd., East Malvern.

### Victoria

- 5YU— C. Smith, 43 Williams Rd., Blackburn.

### Victoria

- 5AAV— C. J. Dunnill, 17 King St., Moa.

### Victoria

- 5AF— C. J. Palmer, Lot 318, Asuron Cres., Hindwood.

### Victoria

- 5AK— A. E. H. Swindon, 27 Brighton Rd., Elwood.

### Victoria

- 5AL— L. H. Allen, 8 Kalang St., Blackburn.

### Victoria

- 5AMG— C. M. Meech, 544 Kemp Ave., Mount Waterfall.

### Victoria

- 5API— J. L. Laughlin, 43 Metherall St., Sunshine.

### Victoria

- 5APX— P. X. Davies, 30 Wynnstay Rd., East Malvern.

### Victoria

- 5AWD— W. D. Mother, 1 Pasadena Ave., Beaumaris.

### Victoria

- 5AWH— W. H. Hampson, 27 Bayne St., Bendigo.

### Victoria

- 5AWR— W. E. Knapp, 23 Cartwright St., Glenroy.

### Victoria

- 5AXX— E. T. Turnbull, 11 Higham St., Cheltenham.

### Victoria

- 5AYM— G. A. MacFarlane, Riverview Guest House, Riverview St., Balnadsdale.

### Victoria

- 5AZA— A. V. T. G. Station, Block 557, Red Cliffs, Postal P.O. Box 34, Red Cliffs.

### Victoria

- 5AZK— C. J. Thomson, 1 De Blusay Cres., Greensborough.

### Victoria

- 5ZAT— F. E. Linden, 1 Bishop Court, Mount Waverley.

### Victoria

- 5ZAS— C. R. Shillwell, 9 Cobden St., Bendigo.

### Victoria

- 5ZAW— M. J. Williams, 43 Mercy St., Bendigo.

- 5RO— R. S. Gurr, Station: Gere Gere Ave., Boroko, Papua, Posts & Telegraphs, C/o Dept. of Posts & Telegraphs, Radio Inspection Section, Port Moresby, Papua.

- 5ZBZ— D. H. Francis, C/o. Boroko Radio & Sound System Service, Tahari Place, Boroko, Port Moresby, Papua.

### Amateurs

- 6AF— A. S. Plett, Wilkes.
- 6CC— C. J. Cooke, Macquarie Island.
- 6MC— M. J. Costrope, Mawson.
- 6RH— R. L. Harvey, Wilkes.
- 6RT— R. M. Turner, Davis.
- 6TY— H. P. Fuller, Davis.

### CHANGES OF ADDRESS

#### New South Wales

- 2RQ— G. C. Page, 20 Marshall Ave., Warrawee.
- 2CC— M. Carter, 4 Albert St., Kempsky.
- 2JV— R. Carr, 7 Belgrave St., Kotagara.
- 2NT— J. W. O'Neill, 23 Gildas Ave., Nth Ryde.
- 2RC— R. W. Chalmers, "Gleneair," Merriwa Rd., Dr. Denman.

- 2ACV— G. M. Mukaiy, 57 Marion Ave., Revesby.
- 2AGL— W. G. Lumb, 206 Old Northern Rd., Castle Hill.

- 2AGW— A. E. Hay, 1838 Pittwater Rd., Mona Vale.
- 2AH— A. C. Pearce, Lot 2, Washington Ave., Dee Why.

- 2ALC— C. Allen, 28 Avon Rd., North Ryde.
- 2LJ— C. J. Boyton, 58 Chamberlain Rd., Beckenham.

- 2AO— V. S. Latham, Lot 2, Anderson Rd., Mt. Pritchard.
- 2AQ— N. C. Scott, 181 Michael St., Jesmond.
- 2ASQ— N. F. Taylor, 17 Margaret St., Streatham.

- 2ATW— F. E. Whifford, 18 River Rd., Ontley.
- 2ZP— F. H. Wagner, 27 St. Ursula St., Beresfield.

- 2ZBZ— W. G. C. Crews, 25 Wycombe Rd., Neutral Bay.
- 2ZBY— J. T. Jacob, 50 Workshop Rd., Cardiff.

- 2ZDP— A. P. Philips, 22 Royal St., Oyster Bay.
- 2ZEB— R. D. Birley, 11 Muogra St., Moosman.

- 2ZJA— N. H. Stanley, 5 William St., New Lambton.
- 2ZMB— B. J. O'Sullivan, 8 Springfield Ave., Potts Point.

### Victoria

- 2AP— H. Bowley, 49 Herres Av., Nunawading.
- 2BC— B. D. Cooper, 10 Marx St., Coburg.
- 2ZD— D. N. Freckleton, 8 Firebrace St., North Fremantle.

- 2FV— K. F. Chick, 2 Eurythmic St., Mordialloc.
- 2ZB— C. A. E. Hill, 313 Jevon Court, Moorabbin.

- 2NW— F. C. McGregor, 27 Ryeburne Ave., Hawthorn East.
- 2OY— D. B. Iliffe, 8 Commercial Rd., Mentone.

- 2PN— D. B. Schroeder, Station: Mangalore Airport, Mangalore; Postal: P.O. Box 1, Avoca.

- 2RU— F. R. Haynes, 6 Lelona St., Burwood.
- 2SV— S. G. Edwards, C/o 293 Richardson St., Middle Park.

- 2SW— J. M. McConnell, 2 Adelaide St., High-ton, Geelong.

- 2TF— G. W. Dennis, 311 Francis St., Yarraville West.

- 2TM— B. H. Hellier, Lot 151, Elizabeth St., Clayton.

- 2US— G. C. Churchward (Mrs.), 26 Barbara St., Vermont.

- 2VL— M. C. Churchward, 26 Barbara St., Vermont.

- 2XH— C. A. Hislop, Lot 22, Roncifile Rd., High-ton, Geelong.

- 2YL— M. A. Henry (Mrs.), 1877 Dandenong Rd., East Malvern.

- 2YU— C. Smith, 43 Williams Rd., Blackburn.

- 2AAV— C. J. Dunnill, 17 King St., Moe.

- 2APL— L. H. Allen, 8 Kalang St., Blackburn.

- 2API— J. L. Laughlin, 43 Metherall St., Sunshine.

- 2APX— P. X. Davies, 30 Wynnstay Rd., East Malvern.

- 2AWD— W. D. Mother, 1 Pasadena Ave., Beaumaris.

- 2AWH— W. H. Hampson, 27 Bayne St., Bendigo.

- 2AWR— W. E. Knapp, 23 Cartwright St., Glenroy.

- 2AXX— E. T. Turnbull, 11 Higham St., Cheltenham.

- 2AYM— G. A. MacFarlane, Riverview Guest House, Riverview St., Balnadsdale.

- 2AZA— A. V. T. G. Station, Block 557, Red Cliffs, Postal P.O. Box 34, Red Cliffs.

- 2AZK— C. J. Thomson, 1 De Blusay Cres., Greensborough.

- 2ZAT— F. E. Linden, 1 Bishop Court, Mount Waverley.

- 2ZAS— C. R. Shillwell, 9 Cobden St., Bendigo.

- 2ZAW— M. J. Williams, 43 Mercy St., Bendigo.

3ZBG—J. G. Goodall, 14 Gresford St., North Sunshine.  
 3ZDK—J. J. McLochlan, Station: "Whispering Tree", 157 Mt. Dandenong Rd., Croydon, Postal P.O. Box 90, Croydon.  
 3ZER—D. D. Watson, 69 Newcastle St., Preston.  
 3ZEW—L. T. White, 50 Baker Pde., Ashburton.  
 3ZGK—D. J. Knox, 5 Rotherwood Rd., Ivanhoe.  
 3ZGT—J. N. Tait, 5 Rotherwood Rd., Ivanhoe.

#### Queensland

4AG—A. J. Greenham, The Crescent, Kallangur.  
 4AK—E. W. Derby, 337 Seaview St., Cairns.  
 4BI—J. Bernhard, Station: 1000 M. Rd., Longreach, Postal: C/o, Dept. of Civil Aviation, Longreach.  
 4DK—A. J. Kelly (Dr.), 80 Wickham St., Ayr.  
 4EF—P. F. Bell, #7 Jubilee Ter., Gordon.  
 4FP—E. P. Powell, Station: C.P.O. Box 11, Kyackoo, Toowoomba; Postal: Box 21, P.O. City, North Toowoomba.  
 4FZ—A. R. Burton, 63 Roselawn St., Highgate Hill.  
 4GT—W. G. Heaton, 5 Gibson St., East Ipswich.  
 4ND—N. G. Dangerfield, Station: Cr. 144 and Ninth Ave., Home Hill, Postal P.O. Box 62, Home Hill.  
 4OC—E. H. Doner, Runnion Downs, Fernless.  
 4OH—H. P. Overend, Station: Johnstone Rd., Mossman, Postal P.O. Box 364, Mossman.  
 4PW—D. W. Presland, Garrick St., Collingville.  
 4KR—K. E. Beale, Gregory St., Clercuny.  
 4SG—B. R. Grantham, 34 Deloraine St., Wavell Heights.  
 4SW—W. W. Stacey, 18 Hunter St., Maryborough.  
 4TD—T. A. Dale, London Rd., Eight Mile Plains.  
 4XK—W. A. McDivitt, 223 Lakes St., Cairns.  
 4ZAB—T. E. Meredith, Davidson St., East Ipswich.  
 4ZBD—D. B. Hughes, Station: No. 3 Gothic C.P.O. Clermont Beach, Postal: C.P.O. Clermont Beach, Clermont Beach; Postal: Station, Belgian Gardens, Townsville; Postal: Base Station R.A.A.F. Casuarina, Townsville.  
 4ZBP—T. F. Scott, Station: Employees' Quarters, Johnson Motors Ltd., Concordia St., Winston, Postal: C/o, Johnson Motors Ltd., Elderly St., Winston.  
 4ZBS—L. J. Street, Cr. Fleming and Farrell Sts., Yandina.

#### South Australia

5BN—G. F. Barton, 63 Marlborough St., Malvern.  
 5CX—E. Moula, 88 Sussex Ter., Westbourne Park.  
 5DM—R. P. Mills, 13 Taylor Ter., Roslyn Park.  
 5DS—R. F. Scott, 33 Albert St., Windsor Gardens SEZ—L. J. Hauber, 33 Glen Osmond Rd., Fullarton, Port Elliot.  
 5LL—G. F. Lucas, 8 Seventh Ave., Trinity Gardens.  
 5QW—B. G. Wright, 27 Robert St., Brighton.  
 5RL—R. L. Larson, 20 Justin Ave., Northfield.  
 5TL—T. Leidier, P.O. Residence, Renmark.

5UX—L. Wallbridge, Hawker.  
 5WM—W. J. C. Bayly, 90 Hulsey Rd., Henley South.  
 5ZRI—J. J. Warman, 2 Yaralim Ave., Klemzig.  
 5ZBZ—B. C. Cleworth, Flat 3, Transmere House, King's Grove, Transmere.

#### Western Australia

5AJ—A. J. Jeffrey, 8 Doriot Cres., St. Perth.  
 5AK—G. H. Lee, Marian Ave., Armadale.  
 5DW—A. D. Hawksworth, 12 James St., Bassendean.  
 5GA—G. W. R. Ashley, 31 Flinders St., Mount York.  
 5JL—L. R. Edington, 25 Normandy St., Ingleswood.  
 5LU—L. Stagg, 58 Esperance St., Victoria Park.  
 5MA—G. M. Austin, Chidlow.  
 5PC—C. A. Parker, 23 Eric St., Como.  
 5PK—A. S. Skinner, 146 Boulder Rd., Kalgoorlie.  
 5TR—T. W. Reed, 39 Ada St., Waterman Bay.  
 5ZAH—R. E. Godding, Darkan.  
 5ZAM—R. E. Godding, 194 Labourside Rd., Como.  
 5ZBJ—R. J. Clarke, 115 Carr St., West Perth.  
 5ZBV—B. R. Pryor, C/o, R. Whiting, Gooseberry Hill Rd., Maida Vale.

#### Tasmania

5LJ—E. J. Cruise, 46 Colville St., Battery Point, Hobart.  
 5MF—T. F. Moore, 33 McGuiness St., Lenah Valley.

5PF—F. D. Frith, Upper Nicholas St., Devonport.

#### Territory of Papua and New Guinea

5AA—R. H. Harrison, C/o, Dept. of Posts & Telegraphs, Port Moresby, Papua.  
 5AU—R. A. Taylor, C/o, Dept. of Posts & Telegraphs, Port Moresby, Papua.  
 5TC—T. M. Cole, C/o, Dept. of Posts & Telegraphs, Kavieng, New Ireland.  
 5WL—Widdup, C/o, Dept. of Posts & Telegraphs, Sonoma, N.G.

#### CANCELLED CALL SIGNS

VK—New South Wales

2AP—A. P. Reynolds.  
 2CN—M. McNabb.  
 2PB—M. T. Smith.  
 2PR—P. R. Smith.  
 2WB—R. W. Bishop.  
 2ZV—D. A. Hand.  
 2AKL—A. Fairhall.  
 2ALD—R. Smith.  
 2AZC—R. A. Alcock.  
 2AQZ—P. R. Ladd.  
 2AQZ—B. K. Brown.  
 2AU—K. Porter.  
 2AVT—V. E. Tierney.  
 2ZD—J. M. Koester. (Now VK3JAN).  
 2ZDR—J. R. Bowman. (Now VK3ASB).  
 2ZJF—B. J. Porter. (Now VK3AWF).  
 2ZJS—K. G. Scott. (Now VK3KS).

#### Victoria

3EO—R. A. H. Russell.  
 3WE—A. R. Williams.  
 3ADC—D. Charlton.

3AGA—M. N. Russell Clarke.  
 3AL—L. R. Fowler.

3AM—L. R. Fowler.  
 3ZAF—P. E. Linden. (Now VK3IRX).  
 3ZAJ—J. I. Kellish. (Now VK3AJI).  
 3ZCJ—J. M. Hamilton. (Now VK3AYI).  
 3ZDJ—D. G. Johns. (Now VK3AJZ).  
 3ZDT—G. Thomas.  
 3ZDZ—W. H. Heeson. (Now VK3AHZ).

#### Queensland

4HG—H. G. Brown.  
 4HM—H. J. Murphy.  
 4WA—W. J. Barker.  
 4WF—W. F. Woolley.  
 4ZAM—K. N. May. (Now VK3VM).  
 4ZAY—R. J. Conway. (Now VK3CR).

#### South Australia

5HI—J. H. Clifton.  
 5ZRQ—A. B. Hollebon. (Now VK3EQ).  
 5ZGT—B. G. Tidman. (Now VK3TN).

#### Western Australia

5RH—E. F. Robins.  
 5ZBD—W. K. Hobley. (Now VK3KH).

• • •

## BOOK REVIEW

### "RACE FOR LIFE"

By Jacques Remy

Many readers will already have seen and enjoyed the unusual French film "Race for Life", in which the crew of a French fishing trawler at sea was smitten by a deadly food poisoning. Their call for help was heard by a Radio Amateur in Central Africa and medical aid finally arrived through a tortuous maze of contacts via channels ranging from official to highly unofficial.

A translation of the original novel is now available. One sees immediately that a considerable amount of "revision" went into its preparation for the cinema. The original trawler was Swedish and the name of the disease with which the crew was afflicted is never mentioned. Characters were largely altered for the film, some being omitted and others substituted.

Many anomalies are evident to the technical reader. Skip distances are puzzling, call signs are incorrect (perhaps deliberately), operating procedures are unfamiliar. One "Amstuer" finally decides that his rig might operate better if he erects an antenna. One is amazed at the thought of Italian smugglers using the Amateur bands for open speech communication between base and field party. Even more amazement is felt that the smuggler's base operator is sufficiently compassionate (and foolhardy) to act as a relay for the distress message, leading to his own discovery by police and postal officials.

The author, in perhaps typical French fashion, uses the whole episode of the distress relay as a background for a chain of sexual intrigues, reminiscent of "La Ronde". This mixture of sex and Amateur Radio seems peculiar to the Australian viewpoint, since in this country "Ham Radio" appears to have a somewhat opposite effect on the senses. There is a strong parallel with Koestler's "This Age of Longing", where East-West politics act as a puzzling basis for a textbook on erotic psychology.

Nevertheless, the plot moves steadily from scene to scene and the tension is well built up. Despite the apparent anomalies, or possibly because of them, the book makes very good reading.

"Race for Life", by Jacques Remy. Four Square Books, 3/6.

—Reviewed by Laurie Walters, VK3CN.

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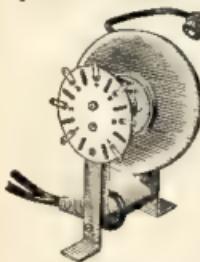
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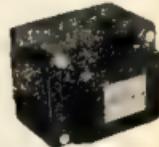
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VHF

**Frank P. O'Dwyer, VK3OF**  
180 Thomas Street,  
Hampshire, Vic.

Have you sent in your log for the Rose Hall Contest? If not, give us some room for the results. We have had not of this entertainment provided by your F.E. through the Federal Contest Committee. Entertainment that provided endless discussion for the first couple of weeks, then settling down to a quiet period.

The Contest was a mighty baptism of fire for the newcomers to the band. Most chose their logs on the last day with a quiet determination to have their gear in top notch condition at the start of the next Contest and were satisfied with the contacts made on their own and made their share of contacts during the hectic periods. Now is the anticipation of repeating many of the "first contacts", the greeting next time of an Interstate operator old friend. The contest has been held in the Contest and quiet openings not being as frequent as they had been during the preceding months. In the closing hours of the Contest VME signals appeared in VME and Joe C. MCQ chased them until within minutes hours of the final closing. They were finished with contact with Mac SQUARD 6308. Both well known members of the unclenched "Night Owls Club", may be they are trying to start an "Early Hours Club".

opening from VK3 to Northern VK3 and VK4 allowed the boys to yarn for a while on 50 Mc. a change from the normal short contact of the Contest period. While the VK4s were still rolling in and making contacts, the VK3s were up to plus five minutes and gradually pelared out over the next five. By 1250 there was no sign of them. Sunday, Feb. 5, Bob ANC had contact with KRRM and KRRM was still west of the signal on Wed. evening. Feb. 11, and the logging of Bert 3KU couple of nights earlier VKA had a couple of scratchy openings to JA while 2AXI had them crashing in on Feb. 10 and 11, so much so that he nearly became tired of working them.

**General**.—Taken all round the average 50 m.e. operator makes a good contact either local or

Interstate, only too willing to swap news, discuss experiences, describe gear and help with technical problems. And there are many smart boys among the rising generation. To offset this, their reliance to some on news from other sources, there do not seem to be many of them active. Probably Interstate fellows know more of their doings than those in the metropolitan areas of their own Division. A WACOM has been kept up to date by a station which is doing as he is to know what is going on locally. The same applies to all Divisions. Often items are written into the notes, but no details can be given, possibly because the news cannot be given through official channels through so many mouths. Under these conditions occasional minor errors must occur as to what, who, and when. This is an appeal for accurate and up-to-date news. When you hear or work something special, send the information in. Cities, clubs and organizations of your activities. City, town and ham alike, if active you get a lot of fun out of the game. Do not be selfish. Help the other fellow to keep abreast of what is going on. Perhaps writing is a brightful bore, but rise above it for the sake of the other fellow. Even information every 2 or 3 months is better than nothing at all.

No. I on the list is the coming advent of

TV in DIVISIONS apart from VK3 and VK5. Many a wrinkle has been discovered for those who are interested in transmission on the higher frequencies. Those in VK3 and VK5 who are TVL proofed are asked for information on the methods they are using, what they have done to prevent their equipment being damaged. General information is available but save those who have the 30 Mc TVL probem before them, a few headaches and perhaps a lot of trouble. All that they can do is point you in the right direction. If you are going to transmit on the 30 Mc band open your front door to me by giving information before the one-eyed monster curtails their activities and consequently reduces your potential for making contacts. Anything received will be published, with or without your name as you desire.

These two paragraphs apply equally well to those who operate 144 or 225 mc. or higher. Firstly, from the news angle you cannot expect your Divisional scribe to be all seeing and all hearing especially if he is located in the metropolitan area not active in the local v.h.f. group. Secondly, although you do not isolate them yet on those bands except in isolated cases, your fellow enthusiast Interstate will have the same problem with t.v.l. to face up to in the future.

## NEW SOUTH WALES

At the time of writing the N.W.S. Divisional Convention at Dural has just concluded and made another successful occasion of the year. The v.h.f. gang were well represented and amongst those noted from the country were VK4 ZZDL, ZDF, ZDR and ZZMD. It was pleasing that a v.h.f. band, Phil ZZR, won the prize for the best city member built item, which was a very compact 1 m.w. rig.

Fox Hunt, 11/1/58.—John ZLAV was Fox on this event and hid the tx beside the Parrish Ranch.

At Rydalmead, Sniffers were first to get through to EAZZ with first into the area. ZAWZ accompanied by ZAAQ pipped Bob at the post. Bob was accompanied by his XYL. The remaining hounds came in as follows: ZAWZ with ZEAL, ZAWZ with ZER. Also ZAWZ apparently in difficulty were ZBXB and ZZFC. Compliments to John's XYL for the excellent supper. Missing from the scenery were Jim and Tom, both of whom have moved. Jim has been down the south coast and kept in touch via 80 and perhaps it was some loyalist who couldn't bear seeing the v.t.b. chairman using d.c. and stole his 80 m.w. dipole from him. I hope he gets it back. Did you think we had a good time? In the way, concerning the results of the Nov Spring Field Day went by without being officially recorded and are as follows: 1st, ZZCF, 22 points, 28M2, 218; and 2nd, ZER, 18 points.

56 No.—January has been a fairly active month in VK3 with regular contacts to VK3, 4 and 5 and with openings to 6 and 7. The ZLs seem to have expanded to some extent. The ZLs and JA have put out their Building activities for the band have been moving and ZZCF and ERX have built new rigs. ZAAU, LJK and ZZJK have been other stations making an appearance on the band.

144 - Good Sportscast break-throughs have occurred since 1/1/80, but Sydney stations were able to have good contacts with Ken ZANU at Murebrook, a distance of over 100 miles. Also contacts were made with Tony 2ZBZ at Hornsey, and with the big sig not getting any better, the man with the big sig is Bob 8QZ who now has a new ECR with fm. and a grounded-grid converter. Congratulations to Alan 2ZRK and Yvonne on their recent marriage, and to Tony 2ZBZ for departing permanently for Lismore and wife with him on his move. Tony 2ZBZ is now in his new sig at Hornsey and surprised the gang when he turned up with what was described as a GTR 2DR at Blayney. Tony is a super location. Neville 2ZR at Blayney is again making skeds with Sydney and is currently contacting 2ZCF at 730 AM.

on that mobile equipment as there will be many good events coming up soon and include March 8 a treasure hunt and March 15 a mobile fox hunt. Also keep in mind the monthly meeting held on the 1st March at the Gop Hill Tech. College. Further details on this meeting and all events are given in the Sunday evening v.h.f. broadcast at 7.30 p.m. See you next month--2AWZ.

to be a fr

on 5 MHz with only a few openings to VK3 and VK4. A promise of things to come has been made by Alan, Frank, and Peter ZEDDZ heard on JA3AE at 1330 on 5 MHz. Whilst stations have been concentrating on 1 MHz with a considerable amount of success at the present time a good proportion of 1 MHz operators seem to be using 5 MHz and there have been various both of which appear to be the secret of success on this band. Some outstanding contacts for the month on 1 MHz include the two-way contact between Ron ZL2ER portable at 100 miles and Joe ZL2JL at 100 miles distance; the about 110 miles as far as VK3 could?; the hearing of ZEDDZ and David ZLAT in Ballarat by Les Z2CN over a fairly difficult 10-mile path, and the regular contacts of Bill ZBU from Geelong to Melbourne.

Bill 3BU in a recent letter says that 1 m activity in the Geelong district is on the increase. He has recently erected a 16-element beam with the assistance of 3ABK and Fred 3ALG. The beam is 70 feet above ground level and should help Bill to put a tv. picture

into Melbourne when he stokes up his new  
16-camera tube

Two more activity, in the Melbourne district has been low, but it received a temporary boost on Jan 10 with the Melbourne stations worked on TLE, PTF, TBA and TRL at strength up to 9. In contrast the Western and Eastern District gangs have been quite active, and Gordon 3ZBZ once again sends in the following report of his activities. On Jan 10, Gordon has arranged skips with Jim MAJON at Cheltenham. Jim transmits on 143.41 mc Saturday at 2330 for five minutes and then listens. So far they have had no success, but are hoping that a contact will stimulate interest among listeners. Yesterday Gordon shifted his QTH to a high spot in Ballarat and is back on 3 mc. Interstate DX from Ballarat includes VK7 on four occasions in Jan with a notable effort by Brian 3ZBV who worked Col YL2 from Ballarat using a 60W rig and a 10m dipole with 5W. During the VK7 break through Gordon 3AVG in Colar managed to bag himself first VK7. Finally, the Ballarat gang have been working with 3ZBV at Sale and 3ZBZ in Traralgon over approx. an 180-mile path.

The Jan. v.h.f. meeting was held in the new rooms in Victoria Parade for the first time. The meeting was opened by President Jack ZEDG who gave the first lecture and gave a theoretical and practical demonstration of a Parametric or Resonance Amplifier for 8 m.m.c. Jack found that the germanium junction diode QAH-1 was the best for this purpose and used a half  $\lambda$  loop as a pump oscillator on 100 mc. Although he has had considerable success at his home QTH with the amplifier, Jack found it would be temperamental at these rates so he ought to get a better spring motor. He was also able to show that the tuned circuit could be turned across the band merely by altering the reverse diode bias and also that the circuit could be made to oscillate at 80 mc with the pump on at 100 mc. The second speaker was H. ZEDG who gave a description of and brought along one of the new commercially available 3 mc v.t.o.'s. The meeting set the dates of the last two Field Days of the season as Sunday, March 8, and Sunday, April 12-13ZAL.

DEATH QUEENSLAND  
a book under 10 months

30 stations for 300 contacts with VK5, VK6, 4, 5, 7 and 8 and about 150 JA call signs in all JA districts for 350 contacts. He hopes to catch the missing VK5 very soon together with the ZA's. The JA contest was won in this area in districts 1, 2 and 3 Main. Event in this area during the past year was the cracking of the 6 mm barrier between Townsville and Charters Towers. Now there is a regular VHF link between the two towns. There has been a single failure since the sked started. Active stations in the area are VK5 4LKK, 4ZAK, 4ZBB, 4ZBE and 4ZBW. One of the surprise contacts of the Main Contest was the working of VK5 4ZAK. This was during the day when he was mobile at a distance of 300 miles. Then to JA opened on Feb 8 at 3100Z and again the following night. Signal strengths were very good and the boy was quite pleased. The amount of activity may pick up a bit of activity in this locality. There are some 30 stations in this area but generally the inclination is not to operate 30 mc.

動植物園の開設を計画する。

at the moment, the 50 mc band being dead for the last week. A couple of break-throughs to VK3 with intermittent contacts to VK4 and user VK3. WVECTV was portable VK3 with JAMES. He had a portable AZAW. George MCGREGOR worked EZZGL who was portable YMX-39 with JAN. Reg SQR had two portable contacts with JAMES on phone. Reg tried to finish the contact on c.w. but no success. David JAW heard him on back-to-back.

SAX is the provisional winner in the State with Reg SQR a close second. I wish to emphasize the value of all logs to those who are collecting data for the geophysical year and I request that all logs be forwarded even though the score may be small.

1st Feb was a complete blackout on 7 mc. and the 50 mc. band was used for receiving the session to the country boys. Even Gordon

EXU called CQ on the band. Gordon's super-regen wasn't going too well and we managed to have half a contact. With a little persuasion I think we could get Gordon to build a rial controlled converter, hint.

We worked Malvern VK3H back on the band after a break of a few months, keep on fellow, the JAs will be through soon. Col SRO's 50 ft. tower went up on the holiday morning with the help of a 60 ft. mobile crane. The erection went along smoothly and all the components were fine and sound. The main attendance were SZCR, SZKX, SZKL, SZAT and SZAQ. I understand that the 4-el. went up this last week-end. Whacko, the DX! While on the subject of towers, I understand that some VK3 stations have been demonstrating 60 ft. collapsible lightweights suitable for attaching to vehicles. It is also rumoured that two were purchased. By whom? Oh! That's a secret, but suggest you keep listening in a north-westerly direction and you might hear something.

The last week has seen cross-band activities 50 to 144 and 50 to 288 mc with talk of building rigs for 144 mc, by those who have not been able to buy one. Curly SZKX, Graham SZP, Ken SHC, Curt SZKZ, Keith SZCT, Bill SZAQ and yours truly. I also understand that several associates are building converters and will join in the fun.

Moves are afoot to make available the v.h.f. bands for practice to c.w. amateurs. It is suggested that practice take place in the second megacycle of the 50, 144 and 288 mc. bands. These frequencies will not interfere with DX working, will help to use the bands to the fullest extent, and provide an easy means of practice for intending candidates for the full licence.

A committee of six has been formed to enquire into and advise on the constitution and rules necessary to bring into being the proposed V.H.F. Group. The members are SRO, SZP, SZKX and others appointed by Council. Give them your support fellows, and bring forward your suggestions to help make this move a success.—SZAQ.

#### WESTERN AUSTRALIA

Nothing much to report on this month as things have been quiet except for a little DX on 6 mc. During Jan. a good time was had by all, frequent openings being experienced to VK3 and VK4. A few VK3 and 4s occasionally helped add variety. Incidentally, for the benefit of VK3, we would hasten to say that the lack of VK3 sigs into Melbourne was not through lack of activity over here; we just can't hear you. Perhaps some of the theorists can give us some reason why nearly all the VK3 stations worked in Perth were from country areas. I am, of course, leaving SWG out of it. Some of you chaps don't seem to realise that WA is as far from Perth as Canada is from Michaelmas. Wait a minute, and then remember that SZYM and SZCK are a further 400 miles North of Perth. It's a big State! SZLY's beam seems to pay off, since he could be heard by SZCR and SZBZ when other Melbourne stations were unavailable. Locations come into it here also, since GBE is 1600 ft. above Perth, and SZKZ is the furthest city station from the hills and has a good location.

Beams are now turning north again, waiting for the JA DX. One reasonable opening was experienced during Jan. Several of the boys attempted to wrest numbers from the puzzled JAs to no avail! We think the longest distance prizes may come this way though for the SZBZ-YA contests, this being around 8000 miles. The first 10-m. signal has not yet been heard, with the exception of "old faithful" HILKA. This station has been so consistent over the last 13 months that with proper receiving equipment it could have been used as a pretty fair source of entertainment.

News has come through that the W.A. V.H.F. Group has obtained its incorporation papers and has also obtained its station license. Their call sign is VK3VHF. The first signals will very soon be sending out this call auto-m.c.w. keyed carrier within the first couple of weeks in Feb. Power will be 50W. Frequency is uncertain at present, but will either be 50.5 or 51.5 mc. Operation will not be continuous, but as many hours as possible will be put in. Unfortunately the authorities imposed some rather stringent requirements imposed by your suggestions to help make this move a success.—SZAQ.

Think that's about it till next month, chaps.  
Good DX.—SZAQ.

#### TASMANIA

Well, the Hobart Hull Contest is over again and I think, as others probably do, it's about time some changes were made in the rules. The present rules relate only to a DX Contest and a contest which is against the general aims of the Contest. The sources should favour the use of the high bands instead of the 50 and 60 mc bands which, after all, are only more or less h.f. bands when the m.f. goes high enough. We in Tasmania just want more VK3s there to work in 2 mc when they require additional points to supplement 50 mc. contests, but stations are non-existent when 50 mc. open at the same time. It would be better if separate rules should exist for 144 mc. and above, favouring increase in activity on these three bands.

144 Mc.—The band has been open to VK3 for 10 days this month with best days on the 18th and 30th Jan. TTF, TBC, TRL and TLZ have been active. VRL worked first DX on the 18th after being caught with a xtal on 147 mc. He was able to later get another signal on 144 mc. He has now moved to Melbourne from his Stanley location. A converter is being finished to improve reception. TPC caught with his beam down, but managed to work the stronger stations with a temporary antenna. FPL and TBC have been working including 2AGV who for many years has been after a VK7 QSO. The 10-el. Yagi is now 43 ft. and results so far show an improvement. A Parametric Amplifier is being experimented with for maximum gain, but only just able to make up the losses without actual amplification. For information see "CQ" Nov and Dec 1954.

Col TLZ well up on the DX contacts, and the deletion of an r.f. stage from his converter resulted in a marked reduction in local station QRM due to mixed overload. TBC contacts him, but JBQ was heard in contact with him. TZA1 was on locally in Devonport but is yet not prepared for DX contacts.

VK3 stations worked by VK7 during Jan. are as follows:—SALZ, SZLJ, SZCZ/P, SZDB, SZBQ, SZLJ, JECZ, SZCN, SZQ, SPO, SZBZ, SZAL, SZEL, SZBP, SZER, SZEO, INB, SZFA, SZAT, SAGV. TLE worked SZBS/P running 1 watt input to a 6J3—7PF.

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## CORRESPONDENCE

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

### AUSTRALIAN DXCC AWARD

I feel that it is noted in Feb. "A.R." "Any Ideas Worth  $\frac{1}{2}$ " raises some misgivings amongst the active VK DXers who have been hoping to see something done about the Australian DXCC Award.

With regard to the DX notes, from time to time I made comment on the A.R.R.L. thinking in regard to what constitutes a "country" for their DXCC Award and the disparity that exists between their list and the W.I.A. My suggestion was to wait with particular pleasure in mind, but now, not having the responsibility of the compilation of the DX page, let me say that in general I have been behind the W.I.A. in listing what has become known to many DXers as the "rat race," despite my recent crack regarding the Certificate not being worth the paper on which it is written. Again this particular purpose was in mind. I have seen the list printed by W.I.A. which shows a total of 280 countries, but a very good friend in W.I.A. is already claiming 282, whereas the W.I.A. list published in Jan. A.R. is 275. You see what I mean by diversity!

A farcical situation arose for the 1955 VK-ZL Contest which was run by the N.Z.A.R.T., and they stated the A.R.R.L. countries list would be used for scoring purposes, so we have had the A.R.R.L. pass on the list which for scoring purposes they do not recognise. What happens when the W.I.A. runs the contest: is it the A.R.R.L. or the W.I.A. the recognised scoring list?

My reason for writing this letter is that I feel there is no room in the Amateur world for two awards, with similar characteristics and name, being granted by different Amateur organisations especially when they are as close as the W.I.A. and A.R.R.L. The A.R.R.L. started the DXCC, so let them retain it as their award, having only one DXCC award irrespective of the sponsoring organisation.

As the W.I.A. now finds it necessary or advisable to redesign the DXCC certificate itself, why not withdraw the Australian DXCC Award, and start another award which will not be influenced by DXpeditions to uninhabited rocks, changes in politics or for any other reason that can effect the future requirements or conditions of the award. This may not be easy, but it will certainly remove the resulting frustration of active Australian DXers in trying to assess their countries worked, submitting a QSL to the Australian Awards Committee, only to find it is not eligible for DXCC.

Should something logical and/or sensible come out of the Federal Executive submission to the I.A.R.U. for a standard assessment of what constitutes a "country" for DX scoring purposes, I can suggest where there may be room for two DXCC Awards. Has this thought been considered by F.E.?

My suggestion and recommendation is that F.E. themselves should sit this subject on the agenda for the forthcoming Federal Convention. If you wish to get some additional angle on the subject, have a look at Alan Brown's (VK3CXC) article in March 1958 issue of "A.R."

-F. T. Hine, VK3QJL.

F.E. advise that the matter of DXCC countries list and the W.I.A. Certificate have been discussed by many Amateurs and the aforesaid matters will be listed for discussion at the forthcoming Convention.—Ed.]

### FROM AN H.F.-TIME LISTENER

1465 North Gibbs St.,  
Pomona, California.

Editor "A.R." Dear Sir,

This is to wish you and the members of your fine organisation Season's Greetings from one who has been a member of your ranks since you still have records prior to World War I. I may find me listed. At that time we met on Bourke St., Melbourne. I believe the place was called Oxford Chambers. I was on the side street, Bourke Street, Bourke Street two words. Queen Street from Elizabeth Street, and I remember we used to buy our antenna wire from Warburton Franki across the street.

I wonder how many of the members of that day and age are still around. Of course I was only a kid then. I enlisted at 17 while attending the Technical School "Junior."

I still hear from Jim Cuncliff of Preston, although not for some time. Another I remember was Les Dredge of Preston and a Mr. Topping from Thomastown. Both these men were older than I quite well they have passed on. My first call was XCI. My call for receiving after W.W.I. was V-163.

I am still active in Radio, being Radio Officer on the U.M.S. "Gear ARS-34," a Navy vessel now in the U.S. Navy in the salvage and rescue service. Do not go to work the Ham bands except on 75 metres, as most many contacts lately with the VKs.

Oh yes I got my wireless training at the Amalgamated Wireless School in Melbourne, getting my commercial license in 1931. My Actual address used to be "Glentworth," Yarralumla, Preston, Victoria.

CHEM S. Pugh, WA1KCP/MM.

### "WHAT'S WRONG WITH 40"

I have read the letter written on the above subject by Ted Cawthon, VK5AJE (Feb. "A.R.") and support his plea most wholeheartedly. It is most timely indeed considering as it does at a time when F.E. are trying to recruit F. Mc. "in a last ditch stand" so as to speak.

We must be frank, and admit that except during the R.D. Contest, the number of VK Amateurs to be heard on 7 Mc. (c.w. and phone) at any one time can be counted most dimly on one's fingers and toes. (Remember that we have thousands of licensed Amateurs in this country!) Shameful isn't it?

For all of my 30 odd years' activity as an a.w.l. the lower of our frequency bands have been my favorite, and a very particular leaning towards 7 Mc. since we were granted its use. I have been in the position to carefully

— and regretfully — note the gradual drift away from "40" until this very day (4/3/59), when I can list on the band between 15150 and 21125. I heard some 30 Europeans one morning marine W.B. near Bermuda and one solitary VK VK5ICRG..

If further evidence is required to confirm what VK5AJE is "driving to home" about 40 metres, take a look at the calls listed under "Australia" in the DX news section of the Feb. "A.R." — it pains me every time I peruse it, because usually there are less than five reports listed (only one in Feb. issue), whereas 14 Mc. may contain up to 25/30 reports. Even 20 Mc. usually boasts more VK activity than 7 Mc.!

I ask you to again peruse the letter by VK5AJE in Feb. "A.R." and then, if you really want to? "Me" retained by VK as an Amateur "give up" 40". By so doing, you will help provide our Rep. (John Morley) at the forthcoming I.T.U. Conference with "bullets" which he can "fire" at those who seek to destroy what we amateur have-to wit, the use of "40" as a Ham band.

—Eric W. Trebilcock (BERS1GZ, WIA-L3062).

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## FEDERAL

**Fed. President:** G. M. Hull, VK3ZG.  
**Fed. Secretary:** L. D. Bowie, VK3DU, Box 2611W, G.P.O., Melbourne, C.I., Vic.

**Federal Councillors:**  
 New South Wales—Bob Geddes, VK3ARG.  
 Victoria—Dave Wardell, VK3AVG.  
 Queensland—Arthur Wiles, VK3AW.  
 South Australia—Richie Richards, VK3SDO.  
 Western Australia—Ron Hugo, VK3HW.  
 Tasmania—Douglas Fisher, VK3AF.  
 Papua—Gulmer—Ruse Colletan, VK3XX.

**Fed. Contest Committee:** Reg. H. Morris, VK3ER, 2011 W. G.P.O., Adelaide, S.A.  
 QSL Bureau: R. E. Jones, VK3EJ, 22 Lonsdale Street, Box Hill, Elst, Vic.  
 Awards Manager: A. G. Weyman, VK3XU, 5 York Street, Bonbeach, Vic.

## NORTH WESTERN AUSTRALIA

**President:** Peter Realy, VK3AQP.  
**Secretary:** Norm Beard, VK3AJL, Box 1734, G.P.O., Sydney.

**Meeting Night:** Fourth Friday of each month at Science House, Gloucester Street, Sydney.

**QSL Bureau:** Box 1734, G.P.O., Sydney. Frank White, Manager; assisted by Allan Smith, VK3AIR.

**Zones Correspondents:** North Coast and Tablelands: Noel Hanson, VK3LAHH, Ryan Ave., West Kempsley; Hunter Branch: R. W. Rose, VK3AHC; Central Branch: G. J. G. Goss, VK3AHC; and Lakes: H. Hawkins, VK3LV. 2 Comfort Av., Cessnock, Western: W. Butt, VK3WH, "Cambewarra"; Forbes, South Coast & Southern: E. Fisher, VK3DY, 1 Oxide St., Warrawong; Mid-Western: J. W. J. Edge, VK3AJA, Wallend Bl. Cooloolan; Tumut: S. Smith, VK3APS, 56 Upper St., Tamworth.

## VICTORIA

**President:** F. G. Ball, VK3VY.  
**Secretary:** J. R. Lancaster, VK3JL.

## FEDERAL

### CHANGES OF ADDRESS OF LICENSEES

During the collection of donations to the I.T.U. Fund it has been noted that many licensees have apparently overlooked the requirement for notification of change of address to the Postmaster-General's Department. Obviously some of these might have been received too late to tally with the last issue of the Australian Radio Amateur Call Book but in this case the Council has no choice but to refresh your mind on this. The following are the relevant Regulations. Attention to this will also ensure that the Call Book is right up-to-date at the time of printing each publication.

## CONTEST CALENDAR

Compiled by W.I.A. Fed. Contest Com.  
 ★

### ROSS HULL MEMORIAL:

Return of Logs: Postmarked not later than Sunday, 1st March, 1958.  
 Logs from all who took part in Contest would be appreciated. Propagation data derived from Logs is important.

### NATIONAL FIELD DAY:

Comments on call signs used and on having extra field days during the year would be appreciated.

### A.R.E.L. DX COMP. 1958:

Dates: Same—March 6-8.  
 C.W.—March 20-22.

All Bands.

### RUSSIAN PHONE CONTEST:

Dates: March 14-15, 1958.  
 Rules: See page 13 this issue.

### REMEMBER DAY CONTEST, 1958:

Dates: Saturday, 15th August, to Sunday, 16th August, 1958.  
 Duration: 1800 hrs. E.A.S.T. to 1750 hrs. Brus'ka: As for 1956.

### OZ C.C.C.:

Dates: May 3-4.

All Bands.

### VK-ZL DX CONTEST, 1958:

Dates: Phone—1000 GMT, Saturday, 3rd Oct. 1958 GMT, 4th Oct.  
 C.W.—10th Oct.—11th Oct., 1958.

—

## NOTES

**Administrative Secretary:** Mrs. May, 473 Victoria Parade, East Melbourne, C.I. Postal address: P.O. Box 35, East Melbourne, C.I.  
**Meeting Night:** First Wednesday of each month at the Radio School, Royal Melbourne Technical College.

**Divisional Sub-Editor:** V. M. Jones, VK3YE, 7 New St, Survey Hills, K.I.O.

**QSL Bureau:** Inwards and Outwards—W.I.A., Vic. Div., P.O. Box 36, East Melbourne, C.I.  
**Zone Correspondents:** Western: Y. H. Kinsella, VK3AKW, Magdala, Lubeck; South Western: W. White, 48 Victoria St., Warrnambool, and W. Zimmerman, VK3AWY, 79 Swan St., Port Fairy; Far North Western: M. Folie, VK3ZP, 181 Lemon Ave., Mildura; Midlands: R. Johnson, VK3ND, Farnsworth St., Castlemaine; North Eastern: L. Elman, VK3AE, 72 Orr St., Shepparton; Eastern: J. Spark, VK3AJK, 26 Marshall Ave., Mo.

**QUEENSLAND**  
**President:** John Pickles, VK3GP.  
**Secretary:** J. Raifer, VK3APR, Box 333, G.P.O., Brisbane.

**Meeting Night:** Fourth Friday in each month at the State Services Union Rooms, Elizabeth Street, Brisbane.

**Divisional Sub-Editor:** A. Simpson, VK4ZAA, C.R. Baden Powell and White Stn., Everton Park.

**QSL Bureau:** Jack Piles, VK4JP, Vanda St., Bermuda.

**WALES**  
**President:** P. E. L. Dunne, VK1PD.  
**Secretary:** K. E. Millin, VK1PA, Box 711B, G.P.O., Hobart.

**Meeting Night:** First Wednesday of each month at W.I.A., Clubroom, 167 Liverpool St., Hobart Divisional Headquarters: Mr. Watson, VK1TY, 26 Brooker Ave., Moonah.

**QSL Bureau:** Jim Batchler, VK1ZE, 39 Willow Ave., Lower Sandy Bay, Hobart.

**Zone Correspondent:** North Western Zone—Terry Tong, Northern Tasmania—Ray Waldon.

**PAPUA—NEW GUINEA**  
**President:** P. N. Nolan, VK5FTN.

**Secretary:** G. A. Greville, W.I.A.-L2004.

**Divisional Sub-Editor:** R. J. Newark, W.I.A.-L2001, P.O. Box 204, Port Moresby.

**QSL Bureau:** D. S. Brown, VK5GB.

**Zone Correspondent:** Maryborough, R. J. Glassop, VK3HG, 30 North St., Maryborough, Townsville—R. E. Wilson, VK4RW, Hogan St., Stuart, Townsville.

### SOUTH AUSTRALIA

**President:** W. Austin, VK3CA.

**Secretary:** J. C. Easdale, VK3JC, Box 1234K, G.P.O., Adelaide. Telephone: M 7851.

**Meeting Night:** Second Tuesday of each month at 17 Waymouth St., Adelaide.

**Divisional Sub-Editor:** S. E. Dawson, VK3EF, Box 44, Gawler, S.A.

**QSL Bureau:** G. Luxton, VK3BX, 27 Belair Rd., West Maitland, S.A. Inwards and Outwards.

### WESTERN AUSTRALIA

**President:** L. Hoeger, VK3VE.

**Secretary:** J. R. Elms, VK3EE, Box N1003,

G.P.O., Perth, W.A.

**Meeting Night:** Third Tuesday of month at Post Office, Cottesloe Avenue, Mounts Bay Rd.

**Divisional Sub-Editor:** J. R. Elms, VK3EE,

29 Central Road, Kalakunda, W.A.

**QSL Bureau:** Jim Rumble, VK3ERU, Box 718, G.P.O., Perth, W.A. (Inwards and Outwards).

### TASMANIA

**President:** P. E. L. Dunne, VK1PD.

**Secretary:** K. E. Millin, VK1PA, Box 711B,

G.P.O., Hobart.

**Meeting Night:** First Wednesday of each month at W.I.A., Clubroom, 167 Liverpool St., Hobart Divisional Headquarters: Mr. Watson, VK1TY,

26 Brooker Ave., Moonah.

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**QSL Bureau:** D. S. Brown, VK5GB.

ing more time for discussions which were bound to arise, concentrated around the figures submitted in this month's Bulletin. The discussions which took place centered around the figures submitted by the W.I.A. Division and the figures submitted by Council FOA. DISCUSSION ONLY were severely criticized by some present. The general feeling among members seems to indicate that an increase in amateur participation in the contest is demanded on, and looking at a report from our Honorary Auditor, this seems most necessary to maintain the high standard of Institute activities that members enjoy today.

A motion was passed at the meeting to submit to the accuracy of some of the figures quoted in this month's Bulletin, and a motion was moved by Phil ZER "That Council form a committee to thoroughly investigate and report in detail how these figures were worked up." Council hope to have this report submitted to the members at the February meeting. From this detailed statement members will be able to plainly see how much money per annum is required to finance the W.I.A., W.I.W. Division and what a rise in annual subs. will be necessary for the satisfactory functioning of the Division.

The facilities made available to members should be born in mind, including the very efficient service of our news service, especially and the work done by the QSL officer, Frank IQI, whose able hands are sorting and dispatching record numbers of QSL cards in and out each month. The efficiency of VK3W, the Divisional Headquarters, Stn. 204, at Dural, in its Sunday Broadcasts to members and the W.I.C.N. activity are beyond reproach.

The Council wish to point out to members once again that there is no recommendation whatever to increase in annual subscriptions, the figures quoted in your Bulletin were merely a basis for discussion.

Recently it was found necessary by one of the major Divisions of the Institute, owing to increased costs, etc., to substantially increase the annual subscriptions to members.

### NINTH ANNUAL CONVENTION OF THE NEW SOUTH WALES DIVISION

Approximately 300 Hams, XYLs, YLs, associates, harmonica and visitors enjoyed themselves on the grounds of 2W1, Dural, on the Sunday, 15th September, 1957. A large marquee was erected which comfortably housed the customers. Last year it was two tents, next year probably two marquees will be needed. Knowing that ZAQF was on his way, the organiser planned for a break of several minutes, however after the Master of Ceremonies, Max ZMF, introduced your Divisional President,

Pierce 2APQ, the aforesaid Pierce welcomed all and sundry and then asked the highly paid engineer 2WI, Dave, to expand the why's and wherefore's of the improvements at 2WI. However, this was rather superfluous as the set-up is on view for all to see and too much cannot be said in giving credit where it is due to the outstanding work both mental and physical, that Dave has put into the station. The last time the writer was there the tx was an ATREB in one corner—the corner is still there, but if the ATR was about, it would be in the other corner.

John 2JU, your Official Observer and Adviser to the Government Delegation to the I.T.U., was next on the list. You all know John, his knowledge and capabilities, as even those who are not radio enthusiasts are aware of his stubborn to give a few bob to the I.T.U. Fund, realise that there could be none better fitted for the job.

Running behind in time, the lecturers of the lectureship were warned to be brief, than briefs a shame as all were interesting and far too short. Joe 2JR orbited with his spitniks, both verbally and diagrammatically. Jack 2ADY told of his experiences of Amateur Radio in N.Z. and how there was then an invitation to a Lions convention, pertinent points were VK laxity in sending QSL cards to them; huxury setting of the shack and gear QRH as we never experience here. Jack gave a personal note of his own, and tried to interest us into the possibility of Amateurs having their call signs as number plates on their cars. Hope this suggestion is persevered with, as have always thought it an excellent idea. Even tried to contact the Minister, but was advised that there was no Q in their alphabet.

Max 2ARZ was on borrowed time telling us how to work with sheet metal, so hope to hear more of it at a later date. Graham 2AGH gave details of an electronic relay switch which the Post 2ZL had in giving a demonstration on how to conduct a QSO in a foreign language, but time was up. The ballot recorded a win to Joe, but it was hard to determine if he won his Aldermanic voice to persuade the female section. Anyway the best man won, so congrats, Joseph.

A small display of Amateur built equipment was on display and the following gives a brief description of their work: Fred 2YAN, Gundagai with his s.o.d., Phil 2ZBL, a 144 meg. trans: Lindsay 1DN, a translatolator power supply; Keith 2AV, test equipment, Laurie Cartwright, power supply, Bill 2LGK, for Suncor, a 144 meg. transmitter, trouble lights and finale, Max 2MP, with the Thing. A cuppa and scones were then very acceptable, after which a disposal dispersal took place at the end of which Alex 2ABT was quite home and Harry's (2AJZ) money, an over-modulating 2WI, I.T.U. percentage should help the lagging fund.

By this time the buffet tea was more than welcome and thoroughly enjoyed by all who participated. However, 2AQH's digestion was somewhat impaired when he was called to the desk to make a speech to receive a special prize for the best 1 meg. signal or for the handsomest Ham. He soon had his ego deflated when he was requested to thank the caterers. So pulling together his fragile frame, he thanked everyone present for their participation, which they prepared and presented the sumptuous repast. They certainly did us proud, so thanks again ladies.

After the dirty dishes were thrown out, John 2MPL and his phonograph recordings of the hearts under rather adverse conditions, and I don't mean Fred 2AEE's overmodulating is the background. However, enough was heard to realise its potentialities.

The final act of the night was Major 2JU, who was successful in the Dutch auction, just pipping George 2AZZ at the post. Perhaps the auctioneer couldn't understand the foreign language. Two excellent films of wide contrast were shown, either of which those who have refreshments. Disposals were on the cards and it was quite a spectacle to see young and old on their hands and knees rummaging amongst the bits and pieces which had been tipped gently onto the ground, a seamountage

going round in London.

Drawing to a finale, the presentation of prizes was the next event. Curley 2XT was press-ganged into performing the pleasant task. Joe received a plaque for his work on the committee, and for his spunkish speakermanship; member-built equipment: City—2ZBZ, Country—2JZC, Associate—Dave of Gundagai Lucky lapel number; Lady—Freds Laycock, and Gent—John Mackie of Hillside, and Andrew Grivas from Griffith. Max 2OT said something I missed and 2JU thanked Councill for the excellent manner in which they conducted the function, to which we all say, here, here.

Bob 2ARG and Rod 2ACU were in their element acting as dispensers to that which the

doctor orders, while Peter's (2APP) hands were never clean due to the job he had to do in in pictures. Jim 2AO collected a card to give him his DXCC confirmed, and to show how pleased he thanked the "Demons of the Tropics", in fact he was still talking when I turned to 2WI. Next morning Head 2KZ, Bill 2FT and Gordon 2SHE gathered the organisational abilities of 2ZL and suggested to their enemies that Bill be asked to guide their expeditions outside the metropolitan area. There were some lucky people who were able to give a GPO card to the Government. Pleased to hear that £25 was collected for the I.T.U. Fund, keep it up boys.

Well that concludes a report of a very successful and well organised function which held to interest all, and no doubt will be bigger and brighter next year. Until then, think what you can do to make it better.—2AQR.

#### HUNTER BRANCH

Well chaps, the annual meeting of your Branch takes place on Friday, March 12, at the N.S.W. University of Technology, Tighe's Hill, Hunter Street, and all are invited. Divine strength and enthusiasm. There will be films on transistors so that and the verbiage of our President would make a full evening.

Barney 1.W. from N.Z. was around the district and visited several groups of us whilst on the subject of the shaker laces, our old friend (ripes), nearly typed friend, Wal 2AKXN, ex-ZLIAU3, arrived home safe and sound, so now he and Lionel 2CS can converse on the subject of the shaker laces, the shaker frequency, which was from the frying pan into the fire. Sorry to hear that Harry 2AJFA has not been too well—hope you will be better ere this reaches print. Bill 2XT advises that the Dubs are anxious to come to VK3, and that if we are going to put them away, they would be pleased to welcome them, so if you contact their President DUILA you will be made more than welcome.

All of us went to the Annual Convention at Duranbah, we were enthusiastic at the results and no doubt more will be there next year.

The I.T.U. Fund is slowly reaching its goal, but time is getting short, so as one of your OATS I urge you to dig deep and do your best to help, helping others and yourself. Fellow Amateurs preserve what is left of our bands. Your Rep John will be up here for the April meeting with his stereophonic apparatus so hope that all who attend can help him in the air and say to himself, "Well I've done my bit to make your trip easier with the knowledge that we are all behind him."

Nice to hear 2AWX back on the air after a long festive season absence and hope the 2WI echo continues to carry on through 1968 as faithfully as it has done in the past, thanks to 2CH.

Somehow I don't think that Bill 2XT will ask Bill 2ZL to show him the shortest way home in future. Bill shows that 2ZL thought he was on the car trial and not the bus of the team. Don't know why 2XT was worried as I gave him back the spare parts I picked up on my way behind him, anyway I had to bring him home. Had no trouble, but that must have been because I gagged him before leaving.

After compiling the 2WI Convention notes, am too tired to persevere with this, so I will leave you with two dates to remember: March 13, Annual Branch Meeting, and March 16, the Social at 2CT's grocery.

#### VICTORIA

Last month I indicated that the Publications Committee was contemplating entering a station in the National Field Day and this is now an accomplished fact. Quite a unique social life of the present Committee I should think.

As those of you who worked the station will know, the call sign used was 3WI/Portable and the location chosen—Warrnambool.

I don't know whether this is a land mark for this Committee, but all who participated in the event voted a complete success despite the inclement weather. In fact the smaller groups are contemplating similar activities, don't hesitate any longer. It's a great idea, the whole thing was very much on the lines of those overseas events you read about.

Naturally enough there was plenty of pre-planning and the usual amount of equipment to be used and whose shack could be rated for equipment, but that was half the fun. Then there was the working bee the previous day to get set up. One of the big hurdles to be overcome was a suitable power supply to fire up all the rigs to be used. The Army got us out of this trouble by loaning

us a couple of lighting sets. George Elliss-Thompson (2ARN) and his good lady provided a caravan and the necessary eats to fuel the participants. In fact George and his wife family camped on the site for a couple of days, word of street name, etc., during the 20 hours out to the Committee.

Now SOM arranged the loan of the site, complete with pine trees. In fact every member of the Committee contributed something, either large or small, towards the effort.

The rain caused a bit of havoc with the higher frequency gear early in the piece, but thanks to Bill's (2IX) very much over-worked Panda Cub and Ron's (3RN) Type 3 MX II, it's a little early to say how we fared on points, but suffice to say that it was a super day and only whetted our appetites for the next.

There was quite a good muster at the Feb. meeting to hear Alan Swindon (VK3AKQ, ex-VSBAS, ex-GANKI) give a most interesting talk on the history of the VK3AKQ pin badge DX. As a lecturer, Alan has a very breezy style and held the boys entranced with accounts of his activities. There was many a sign of envy as he carried us along on his magical carpet.

Alan does not do things by halves, because in addition to giving a very good account of what it is like to be on the other end of that QSO with a very juicy bit of DX, he also brought along the gear he used for us to see. I think that the number knew what was coming when he produced that very familiar shape and sure enough it was an old trusty Type 3 or 3B as it is known in England. The serial used was by necessity of the bent pin variety which the DX taken in its state, put them in an APRS 2000 and the VHF unit made up for any deficiencies as by all accounts there were plenty of takers when VSBAS was on the air.

The Adenese are rather suspicious characters according to Alan, as various pieces of equipment, QSLs, etc., sent to him failed to arrive. This was one of the mysteries of the trip.

Being a rare piece of DX, you are the recipient of all the lurks that some of these DX hounds try for getting a QSO. One character even said a smile to Alan to listen for him. Besides this and several other incidents Alan experienced in foreign lands, Alan presented some excellent colour slides of Aden and from these we could only agree with his statement that Aden is not death to visitors, but to some people apparently believe. Despite the air conditioned buildings and plentiful supply of ice cold beer and excellent swimming facilities, complete with sharks, you can still give me good old Melbourne. Wouldn't swap our snowbirds for sunshiny Aden.

Many thanks Alan for a most entertaining and informative address. We sure hope to hear from you again when next you pass this way, notes or no notes. In the meantime, bon voyage and TS from VK3 and many thanks for the donations of manuals to the Division's Library.

Our President gave the promised report on the new building and had recorded in the minutes the building committee and the date of the purchase. The committee has become the trustee committee and a house committee will be formed later. The report covered details leading up to the purchase, the search over the years and such like. Details of the decision to cover the purchase are not yet available.

There have already been some meetings held at the new rooms and working bees are still going on in connection with the transfer to the new quarters. The postal address is from the 18th February for the Victorian Division, P.O. Box 26, East Melbourne, G.S. and the 181 Queen Street address will then be no more.

New members admitted at the meeting were: Michael 2G, G Foster (2AKC), ex-GKANL, M. H. Timmers (2AN), N. Ferguson (2ZGK), H. P. Fuller (2ZTF), J. W. Walters (2ATJ), H. G. Goodman (2AGZ), W. B. Magnusson (2AHT), C. A. McKay (Assoc.). It was very nice to note that we had quite a number of visitors at the meeting, those should be mentioned, so don't forget you chaps, you are always welcome any time you can make it. The first Wednesday in the month at the Radio Theatre, Royal Melbourne Technical College is all you need to remember.

Meetings for March 16 will be either Max 2ZB or Doug 2DU and the subject, I.T.U. with some very interesting and most important information on tape.

During the change-over of premises, the Sunday morning meetings have been conducted by Keith 2VQ from his home QTH with re-broadcasts by 2YB and others.

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## WESTERN ZONE

Alan JHL and his XYL will shortly be leaving on a world tour. They will be away about six months so we wish them a happy and enjoyable trip. Chas. MIB has also left our shores again, this time however he has not gone to the Antarctic where he had already made two trips. He has now gone to the South Shetland Islands where he has accepted position as Radio Officer for duration of two years. Chas was married to Miss Audrey Harrison before leaving on the "Triadic" on Feb. 8, so when he returns in June we hope by that time these notes go to press. Ham gear was one of Chas' main luggage problems, so no doubt we will be hearing of his doings in the near future.

The last few have been very quiet during the last couple of months. Guess that it is because most of our farmer members have been making use of daylight hours for harvesting operations, so not spending so much time on the air. Cheering till next month chaps.

## NORTH EASTERN ZONE

Holidays are still with us with the President of the Zone, GAXW of Cobram, off on the beach at the Type 23 to keep him company. Alex SAT of Warrnambool was at Hosseburg, while Sid SCL went fishing Gippsland way. Sid now batching, while XYL and harmonica have a holiday. JAGG now back from holidays catching up on DX. Doug Southgate, who is the man of the morning but this is quite a change from washing dishes on holidays. Bruce has also had a passing visit from ICR of Forbes, who was going to Shepparton. Walking or visiting, don't you suppose? If WAF (Wife of Marks), known throughout the U.S.A. as Uncle Dave, pays you a visit during March, Dave is making a visit to Victoria and has high hopes of finding a new home.

Russell Holls, of Radio Australia is active with 286 mc. gear. Other Z calls are busy with gear building for the same band.

Quite a few Shepperton Hams are in a busy time with antenna building and placing the QTH of SAE, one guy getting a nice steel mast I had my eye on. Understand one fellow took a trailer load while another filled his garage with junk (said XYL two days ago) it had been cleaned of useless junk.

Seems to Jim JIN, in construction, a de-passes centre and I hear a bit of swapping for a juicy piece of equipment (both ways) is in the offering. Would you take bottle tops Jim? 3HZ not very active on the air these days but the old 3HZ would be back when his work allows. XYL of 3JKR back in circulation but not the car; Ken now has another one. Harmonic has the mumps, or similar. I am told Peter 4PF and 4CF still having nightshifts but not the car. Haven't heard anything about Andy 4FD or what the bush fire net have or haven't done. Henry what about it? Brian 3ASF now operating on 40 mcx.

## GEELONG AMATEUR RADIO CLUB

Club activity is returning to normal again after the festive season. Discussion nights on two very important aspects of Ham Radio have already been held. Amatels occupied one night with a demonstration of the use of the ZEAV was scarcely copied down by those present. Amateur rx's followed at the next meeting when various club members brought along their home-brew rx's. These covered 2.8 and 7 MHz, bandswitched in a single chassis, small 144 mc converter using two 6A35s and 15V. max. h.t. to the even-popular 35 mc. super regen.

As changes from these technical meetings, the club had an "open" night, inviting their families and friends to hear a lecture by W.J.A. Federal Secretary, Doug 3DU and Mrs. Bowie. Club President, Bob 3IC, welcomed the guests to the social hall and served tea and biscuits and has a poor opinion of the t.v. he saw. Claude 4UX knocked up a transistor mike pre-amp, which works very well. Bert 4BP came on a few times with increased power, 12W, with a 400W linear iron core and the big microswitch which now behaves properly. Ted 4MH and Arthur 4BN carry out sheds during various times of the day with strong signals each way over 10 miles. Claude 4UX has a good speaker in his shack, as a result, not too active as household duties are a worry. He mentions if you unscrub the slug in the Geelos, they drop out. Better talk to Emond in Charters Towers who had some trouble.

The hams are in the air again as members build loops and convert Command rx's in readiness for the coming Convention. Syllabus items for March are: March 11, a discussion meeting on the future of amateur radio to Mr. Vic Clark's home—and all members are asked to bring a plate, as has become the custom of recent months. March 15, "Long Line Equipment—a visit to the Geelong Exchange."

## QUEENSLAND

### MARYBOROUGH

Archie 4CB trying out GAZU beam. Will soon be having his teeth 50 ft. up doing final tuning. 4DJ had top VK4 score in Remembrance Day Contest. Congrats Graham. Has pulled main rig down to re-build into copy of Viking. Montague had a small portable working on 10 mc. with good results. Quad on 21 mc. has broken, so working DX on 10 mc only. Grahame also is getting going on 8 mc. and has a quad working. DX has passed 5000. Grahame has been working on some refinements to his tx.

### TOWNSVILLE

It was quite pleasing to see such a record attendance at the January annual general meeting held as usual at the residence of 4BXK on 20/1/50. In all 40 members turned up and were able to partake of a meal as old members again failed to turn up, apparently have not received a calendar for this year. Better call on Alan 4PS as he has a few still left. After the usual business of last year disposed, reports were given of the year's activities by the Secretary 4WH, who pointed out the great increase of cards handled, e.g. inwards 665, outwards 666, an increase of 365 over last year. A balance sheet showed income in the bank balance. The librarian John 4DD gave a short resume of the books on hand and mentioned the loan of all "QTC" and "CQ" back to 1948 by Rex 4LP. The chairman of the Welfare Fund, WAF, reported that he had been ill for some time and was unable to attend the patient hearing during the last four years, and as he was not an aspirant for the position again, hoped they would give the new Chairman the close support he had received.

Alan 4PS was appointed to the chair. Eddie 4WH again duly elected as Secretary, which he has nobly carried out for the last four years. Eddie 4WH is also Vice President and also Technical Officer, so you boys who are having trouble, here is your chance to get it rectified from an Amateur of long standing. Frank 4PF was appointed Publicity Officer; hope he can get some free advertising. Take up all vacant positions for the time being.

Harry 4HV entertained the boys for the next 90 minutes on his travels, the van being shod as "Spaniard". What experience he had to tell of many ports of call! Time having run out at 11 p.m., he will continue next meeting. Bill 4ZB on holidays visited the capital city and the towns of Townsville, Cairns, and the recent visitor to the shack, also a farewell visit from Rex 4LR to collect his outstanding bits and pieces which I had.

Bert 4LB, the latest call sign in the area, is having the usual troubles of a beginner and now his modulation is good and he is looking for DX. Charlie 4BQ has not yet finished his rig. 4CB 4MF, 4BP and 4RN are on at sketch time. 7 p.m. 14020 kHz with info re small watch groups and satellite tracking. What an audience they have way up as far as Manus Island where Carl 3YT suffers from a stiff neck looking at the heavens for the last trip of Atlas.

As Bob 4TK has taken on further studies in relation to his other chores, he has relinquished the 7 mc. band which is delegated to Bert 4ZB who sends along the following.

Alex 4MA went overland to Newcastle during the school holidays and used the radio there and has a poor opinion of the t.v. he saw. Claude 4UX knocked up a transistor mike pre-amp, which works very well. Bert 4BP came on a few times with increased power, 12W, with a 400W linear iron core and the big microswitch which now behaves properly. Ted 4MH and Arthur 4BN carry out sheds during various times of the day with strong signals each way over 10 miles. Claude 4UX has a good speaker in his shack, as a result, not too active as household duties are a worry. He mentions if you unscrub the slug in the Geelos, they drop out. Better talk to Emond in Charters Towers who had some trouble.

Bob 4WR, who has been inactive for a long time, soon to transfer and will be doing some more work on the 40 mc. band, with the guidance of Ken 4XD, is building a c.r.s. (hope it works, Bob). Harry 4ZP at Sarina puts in a nice signal every morning on the "Kookaburra's session". Vic 4BJ from Bundy has a 400W linear iron core and a 100W in the eastern N.S.W. and the Darling Downs, swears it was only 24 shack doors slammed in his face and arrived home with no spare gear he was looking for. Basil see "A.R." Feb's response to L.T.U. Fund. 73 Bob.

## SOUTH AUSTRALIA

One of the most successful technical lectures for a long time was delivered by Bob 5BU at our last monthly meeting. Bob spoke on the "Delightful and Marvellous High Altitude Winds, and did so in a manner that held everyone interested to the last. So was the interest ever, and so successfully did he get the information over, that he was asked to repeat the lecture. A great compliment to Bob, who is to be congratulated on the way he prepares and delivers his talks—all without notes of any kind.

We all left the meeting convinced we now had a background of what was going on in that field, and who was doing what with the intention of having a look at different lecturer could raise some of those records we seek.

The many articles appearing in "QST" and similar publications on this scatter business will now be read with greater understanding, thanks to the "easy" way Bob explained the complexities of the subject.

Let me end the note of thanks, Secretary John

expressed our general thoughts in stating he

hoped the lecturer would come along again and iron out some of our other problems with

the new lecturer. Bob, it is felt certain he will do just that.

After the smoke and QSL distribution, the main business passed off quickly, with the main item being a motion referred to in last month's v.b.s. notes re the formation of a V.L.C. Group. The motion was carried. Unfortunately Neil 5ZAW was not present, but his motion was brought forward by proxy and Council now have the job of reporting back their findings to the next general meeting. Just as well the enthusiasm of the present members of the proposed group (at least 35) a good formation should be possible. However, we leave Neil to report on that in detail elsewhere.

We have been beset with poor to very poor conditions on 40 lately in fact during the whole of January 40 really played up for short skip or ground wave, whilst on occasions it was no trouble to work Interstate. Result is that from this QTH we were barely placed for general coverage and found it impossible to relay the Sunday session on 8 other than in a very sketchy way.

Fortunately, during that time 8 was OK and due to the enthusiasm of 3HO, 5ZBA, who put the session on air, the van was shod as "Spaniard". What experience he had to tell of many ports of call! Time having run out at 11 p.m., he will continue next meeting. Bill 4ZB on holidays visited the capital city and the towns of Townsville, Cairns, and the recent visitor to the shack, also a farewell visit from Rex 4LR to collect his outstanding bits and pieces which I had.

Another point, try listening on c.w. and s.w.b. when a.m. seems flat, you will be surprised just how well it can work. I would suggest a shift to these modes of transmission.

During the absence from civilisation of Gordon 5XU, the session was transmitted by John 5JG who did a good job and even struck a W.I.C.E. call to duty during the currency of our old broadcast. The return of Gordon means that the duty crew according to roster sprang to it when Brian 5CA and John 5HX (both mobile) joined Pat 5KM in the Victor Harbor/Fleurieu area and provided a linking between the two which was carried by John 5JG. This worked out well enough in 80 and 40 and was the centre of comment and congratulations by the E.F.S. people who were pleased with the new line of communication and of the work done.

The W.I.C.E. Committee is continually in need of further recruits, and appeal to all who have gear that will fit into the pattern, or are willing to acquire same or help in any way, to come forward and join in this worthwhile venture.

Whilst Gordon 5XU was on leave, he toured the far West Coast to Ceduna, meeting up with George 5EC and helping out on a few problems there as well as conducting a mid-morning meeting to the life cycle of the wretched grub with a view to improving the strain and flavour of this popular "succulent". No doubt he will issue a tape to all sub-divisions in due course, as well as a book of W.I.C.E. W.V.

Another portable operator during the holidays was Brian 5EM who was heard from Portland, Vic, with a 12Z. Tom 5TL reported his excellent copy at Remmark, although a bit weak here.

John 5OC at home (SOI at work) heard quite often at good strength on 30 firing into a long wire-about Salisbury to Smithfield, and really mixing it with the DX. Brian 5AB never fails to get a comeback on his s.a.b. these days and is very happy with the entry to that field, in

fact quite a few DX chaps on 20 now start up with "Do you know Bram?"

Once again the field day coincided with appalling conditions for mobile or portable operation, test results were it is very hot, but conditions on the bands at their lowest with auroral flutter to add to the troubles. This is the third year in row that this has happened and I suggest that unless some date is made to a time when auroral conditions are likely to be better, it looks like the field day interest will further drop back and perhaps go from our calendar from lack of interest.

During one part of the day it was noticed that one station was heard long, and fairly broad too, testing, testing, testing, right in the portion of the 40 metre band where a number of much lower powered portable were hoping to call CQ. Not good operating practice that, read the Handbook sometime, it may help.

Sorry to learn that Jim Sullivan had to withdraw nomination as Councilor this time as he is unable to attend. It is believed that he is largely responsible for the acceptance of W.I.C.E.N. in this State, he did a lot of spade work in the formation days and followed it through with no end of conferences, etc. May his health improve and his career go on. Good luck Jim, health comes first, we all realise that we shall miss you, but hope a little quieter off duty hours will help.

There have been a few enquiries regarding the sale of the QSL Bureau, so far as panic chaps, our Treasurer is a canny bloke and figures one postage will send you the receipt and the membership card; the latter cannot be printed until after the February meeting, deferring the cost, however, you will get an envelope from him after that.

Call Books no longer available from the Division, but can be obtained from the Publication Committee, Melbourne. You will find the address of the Bureau in there.

That's it for this issue chaps, for being a part v.h.f. type myself have been in the swim of the Ross Hull, and if nothing else did a lot of listening on 6 kc. as we have missed anything in the dx band, please examine.

Other thing is that I've been fishing a few of the dual Panay left me which has taken up some air time also.

Don't forget though, and will repeat here, everyone Neil will be back early to put up the v.h.f. notes. It is important to send in your Ross Hull logs, no matter if you are a possible winner or, like me, way down, make it out and send it in, for much useful information is contained in them for purposes of F.E. in their case to back the band and for L.G.Y., regards propagation conditions.

## WESTERN AUSTRALIA

There was no meeting during January, but a Council meeting was held at the home of G.R.H. in preparation for the February general meeting. It was decided to have a general meeting for L.T.U. Members. The time is drawing near, fellers; what about it? Some circulars will probably be sent out during the next few weeks. If you receive one, but have already donated, just add another with many thanks going direct. It is very difficult to keep our records up to the minute.

The past month or so we have seen many holidaying Hams. Some, like S.A.G. get away from it all and go QSL. Some have had to travel "dry" away by the right ear spell, like your scribe (marvellous what excuses can be used to creep back for a day or so). The majority manage to mix the two and take a bit of a sabbatical. Hard to get away from home. Believe the crabs come as big as crocodiles down there Francis! Or do they grow after death and consumption? S.G.L. spent quite a long time portable at Greenough River. Believe the local population must be dead there when he got time off to do some fishing up Greenough way also, before getting stuck into the beam fabricating business. Heard one story which I did not get the full dope on about S.H.W. a friend trapping the local oyster by stretching antenna across the gateway. What goes on there?

Paid Alan SMA a visit at his new QTH the other day. Alan has settled in nicely now and is operating well. Hoping to get the doc. to work on in the near future. Alan is working on ideas for obtaining a.s.c. from d.c. sources. There appears to be two schools of thought -*exc* (inverter type of supply) and *sbo* (d.c. motor driven dc-dc converter).

S.M.O. still the busy builder, having now finished bedrooms for growing family; next on the list is badly needed shack. Unfortunately, work is going to intervene.

The a.s.b. gang is growing still. STH is now on a.s.b. and S.A.G. will shortly follow suit.

Bernie has already started building his ex-

cell, and from what we know of what he builds, he will make a very good job of it. The short wave sessions are indeed way again, but unfortunately have suffered due to interruptions through the absence of operator. It is hoped that a regular session may be maintained now that the holidays are over.

Hams, hunters and builders, STH, S.H.W. and S.D.W. have been operating well under the new Den. Den has been operating mobile from his car. Incidentally, congratulations are due to Den on the birth of his first harmonic; congratulations go to Put also on course.

That's about the lot for now, so will say cheers and best wishes till April.

## TASMANIA

### NORTHERN ZONE

All will agree that the 20 or so miles to Taroona to enable the January meeting to be held at the home of George TGC was well worth it as it was a very good meeting. We all had a good view of the efforts of George and also a practical demonstration of how to use a transceiver. Den with Col TLR at the mike. (A very nice one, too).

The George Town Radio Club is beginning to take shape under the guidance of George TGC and, although quite a lot of work has to be done, I am sure that if anyone has any old bits and pieces that are in the way, that the above club is a very worthy cause. Donations will be welcomed.

The meeting closed with quite a few things in mind, the pot and after an enjoyable supper, we rebrained the above 30 miles, which was also quite pleasant.

As stated last month, I managed to get over to Burnie and get as far as Sid TPR who was conducting a most interesting TV demonstration for the benefit of visitors. Sid is using an 1156 set which seems to perform somewhat better than the one I have, probably due to the correct power supply being used. I haven't forgotten about the circulators, and will still be on the tail of a No. 18. The photostat unit has been busy so the 1156 sheets have been held up a bit. Altogether we had an enjoyable evening which convinced me that visiting other stations around and his help, helps to further the spirit of Amateur Radio.

Len TRQ spent the other night giving me an on-the-spot demonstration of how to grind a few kc. too many from a xtal. Nevertheless, it was a very interesting evening and although I did not quite get a few things on the stability, there is no doubt that seeing this done is worth weeks of reading about it. I was grateful for the opportunity to see it.

Have been doing quite a bit of listening on 144 mc. lately, but the band has not been too bright at all. Heard you on Friday night, Cal, the first time over a year.

I noticed in the circular that the time of commencement of our meeting was not known by the Hon. Secretary, Ken TKA. For any others that do not know who and would like to come along (all visitors welcome), the Northern Zone meeting is on the second Monday of each month at 8 p.m. There is no fixed meeting place—we meet at members' homes alternately and the place of any monthly meeting can be found by contacting the Secretary, Max TCA at TNT studios.

That should do it for quite a while chaps. Cheers for now.

### NORTH WESTERN ZONE

Here we are once more: another month of progress (I hope) or otherwise gone by. The only news I have is that the 2nd meeting is our last general meeting held on Feb. 3 at the usual place. Twenty members and visitors turned up and yet another good evening got under way. General business was disposed of, interesting discussions had on the various aspects of business handled. Things are moving towards the Burnie Fire Brigade becoming Radio Controlled and I trust those concerned will keep the now-moving ball, rolling. Visitors, and others, were most welcome and were welcomed in Ted Wicks and Frank Young. I believe Frank is qualified and has only to apply for licence and call sign, and Ted sounds very keen on the tx hunts and D.F. Yours truly and the two or three more bodies shown more than a passing interest in Ham activities.

It was decided to hold another Tx Hunt on Feb. 22 with yours truly, TTT, to hide the "harmonic oscillator". Report on this outing next month.

A huge and delightful supper was once again served up by the ladies. It was very much appreciated, but I can see one will have to go without tea in future in order to do justice to the quantity available. Either that or encourage more members (that wouldn't work either, would it?).

A small quantity of the usual "junk" was successfully disposed of for all concerned and Athol TLA gave away some inexpensive items such as the North carrying on the Ark. Real beauties. Sam TSM and Max TMK has his new rig on the air; I believe he got that nomadic v.t.o. tanned, at least we hope he did.

Discussion was commenced and deferred on the arrangement of a zone net. More of this

Peter TPY expressed wishes for more of us to join him on 144 mags. He is trying hard to get the TPK. Some of us will be there soon, Peter, Ken TAI reported that pressure of work is slackening slightly and hopes to get along to next meeting. Roy TRN is back at work again after his recent mishap, glad to see you again. Len OXZ says OXZ is back. Dennis TDR tells me he is building his first and last boat ( $\frac{1}{4}$  inch plywood certainly takes some bending). I believe he intends operating marine mobile, or is going to hide the tx out at sea— $\frac{1}{2}$  mile offshore. Good luck Dennis. Syd SSF is still active in his experiments with the t.v. I believe Harold TMZ got all the cards coming forward from the QSL Bureau; he sure loves that c.w.

I was pleased to see notes from the Northern Zone, last month, "A.J." Congress Ray, keep up the good work; I guess we will see you down this way from time to time.

Please don't forget the lecture night at the usual meeting place on March 3.

## HAMADS

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**FOR SALE:** Prop. pitch motor, £10. Geloso 4/101 v.f.o., £5. 400-0-400v. 150 mA., 6.3v., 5v. Xformer, £2. 500-0-500v. 175 mA., 6.3v., 5v. Xformer, £2/15/0. Two 6.3v. 3 amp. fil. Xformers, 10/- ea. 30 hy. 150 mA. choke, £1. 0-50 mA. meter, 10/- 0-100 mA. Weston meter, 30/- W. R. Jardine, P.O. Box 146, Leongatha, Vic.

**SELL:** Collins ART-13 Autotune Tx with built-in crystal calibrator and complete with all valves—813 in final modulated by 811s. Schematic and instruction booklet, also generator (not used test). £50 or offer. J. B. Scott. 37 Grosvenor St. Wahroonga, N.S.W.

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5CK	£1/18/0	12-MK	twin cone, £6/10/0
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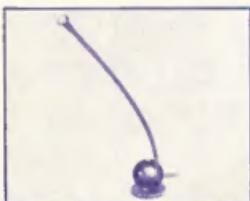
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